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* * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:49:49 ON 04 JUL 2010

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FILE 'CAPLUS' ENTERED AT 11:50:31 ON 04 JUL 2010
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FILE 'USPATFULL' ENTERED AT 11:50:31 ON 04 JUL 2010
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*** YOU HAVE NEW MAIL ***

=> s (nucleotide or nucleoside) and base (4a) (label? or marker or dye)
L1        4804 (NUCLEOTIDE OR NUCLEOSIDE) AND BASE (4A) (LABEL? OR MARKER OR
               DYE)

=> s l1 and linker (4a) (label? or marker or dye)
L2         531 L1 AND LINKER (4A) (LABEL? OR MARKER OR DYE)

=> s l2 and linker (6a) polymer
L3          27 L2 AND LINKER (6A) POLYMER

=> s l3 and water soluble polymer
L4           0 L3 AND WATER SOLUBLE POLYMER

=> s l3 and linker (4a) 50
L5           8 L3 AND LINKER (4A) 50

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6           8 DUP REM L5 (0 DUPLICATES REMOVED)

=> d l6 bib abs 1-8

L6   ANSWER 1 OF 8  USPATFULL on STN
AN     2007:237090  USPATFULL
TI     Compositions for the electronic detection of analytes utilizing
       monolayers
IN     Kayyem, Jon Faiz, Pasadena, CA, UNITED STATES
       O'Connor, Stephen D., Pasadena, CA, UNITED STATES
PA     Clinical Micro Sensors, Inc. (U.S. corporation)
PI     US 20070207465      A1  20070906
       US 7393645          B2  20080701
AI     US 2005-208384      A1  20050819 (11)
RLI    Division of Ser. No. US 1999-452277, filed on 30 Nov 1999, GRANTED, Pat.
       No. US 7160678 Continuation of Ser. No. US 1997-911085, filed on 14 Aug
```

1997, GRANTED, Pat. No. US 6090933 Continuation of Ser. No. US 1997-873978, filed on 12 Jun 1997, GRANTED, Pat. No. US 7014992 Continuation of Ser. No. US 1996-743798, filed on 5 Nov 1996, GRANTED, Pat. No. US 6096273 Continuation of Ser. No. US 1997-911589, filed on 14 Aug 1997, GRANTED, Pat. No. US 6232062 Continuation of Ser. No. US 1997-873597, filed on 12 Jun 1997, PENDING
PRAI WO 1997-US20014 19971105
US 1997-40155P 19970307 (60)
US 1997-49489P 19970612 (60)
US 1997-40153P 19970307 (60)
DT Utility
FS APPLICATION
LREP MORGAN, LEWIS & BOCKIUS, LLP, ONE MARKET SPEAR STREET TOWER, SAN FRANCISCO, CA, 94105, US
CLMN Number of Claims: 24
ECL Exemplary Claim: 1-21
DRWN 41 Drawing Page(s)
LN.CNT 4693
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the use of self-assembled monolayers with mixtures of conductive oligomers and insulators to detect target analytes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 8 USPATFULL on STN
AN 2007:7693 USPATFULL
TI Compositions for the electronic detection of analytes utilizing monolayers
IN Kayyem, Jon Faiz, South Pasadena, CA, UNITED STATES
O'Connor, Stephen D., Pasadena, CA, UNITED STATES
PA Clinical Micro Sensors, Inc., Pasadena, CA, UNITED STATES (U.S. corporation)
PI US 7160678 B1 20070109
AI US 1999-452277 19991130 (9)
RLI Continuation of Ser. No. US 1997-911085, filed on 14 Aug 1997, Pat. No. US 6090933 Continuation of Ser. No. US 1997-911589, filed on 14 Aug 1997, Pat. No. US 6232062 Continuation of Ser. No. US 1997-873978, filed on 12 Jun 1997, PENDING Continuation of Ser. No. US 1997-873597, filed on 12 Jun 1997, PENDING Continuation of Ser. No. US 1996-743798, filed on 5 Nov 1996, Pat. No. US 6096273
PRAI WO 1997-US20014 19971105
US 1998-73014P 19980129 (60)
US 1997-49489P 19970612 (60)
US 1997-40153P 19970307 (60)
US 1997-40155P 19970307 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Whisenant, Ethan
LREP Dorsey & Whitney LLP, Silva, Robin M.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 93 Drawing Figure(s); 41 Drawing Page(s)
LN.CNT 5118
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the use of self-assembled monolayers with mixtures of conductive oligomers and insulators to detect target analytes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 8 USPATFULL on STN
AN 2003:237907 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
    Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
    Xu, Jiangchun, Bellevue, WA, UNITED STATES
    Secrist, Heather, Seattle, WA, UNITED STATES
    Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 20030166064 A1 20030904
AI US 2002-99926 A1 20020314 (10)
RLI Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001, PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING
PRAI US 2001-302051P 20010629 (60)
    US 2001-279763P 20010328 (60)
    US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 8 USPATFULL on STN
AN 2003:106233 USPATFULL
TI Compositions and methods for the therapy and diagnosis of pancreatic cancer
IN Benson, Darin R., Seattle, WA, UNITED STATES
    Kalos, Michael D., Seattle, WA, UNITED STATES
    Lodes, Michael J., Seattle, WA, UNITED STATES
    Persing, David H., Redmond, WA, UNITED STATES
    Hepler, William T., Seattle, WA, UNITED STATES
    Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 20030073144 A1 20030417
AI US 2002-60036 A1 20020130 (10)
PRAI US 2001-333626P 20011127 (60)
    US 2001-305484P 20010712 (60)
    US 2001-265305P 20010130 (60)
    US 2001-267568P 20010209 (60)
    US 2001-313999P 20010820 (60)
    US 2001-291631P 20010516 (60)
    US 2001-287112P 20010428 (60)
    US 2001-278651P 20010321 (60)
    US 2001-265682P 20010131 (60)
DT Utility
FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 8 USPATFULL on STN
AN 2003:203373 USPATFULL
TI Electronic methods for the detection of analytes utilizing monolayers
IN Yu, Changjun, Pasadena, CA, United States
PA Clinical Micro Sensors, Inc., Pasadena, CA, United States (U.S. corporation)
PI US 6600026 B1 20030729
AI US 1999-306653 19990506 (9)
RLI Continuation of Ser. No. US 1998-135183, filed on 17 Aug 1998
PRAI US 1998-84652P 19980506 (60)
US 1998-84509P 19980506 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP Silva, Robin M., Kosslak, Renee M., Dorsey & Whitney, LLP
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 93 Drawing Figure(s); 41 Drawing Page(s)
LN.CNT 4573
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the use of self-assembled monolayers with mixtures of conductive oligomers and insulators to detect target analytes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 8 USPATFULL on STN
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 20020150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)
US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,

SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 8 USPATFULL on STN
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 20020132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 8 USPATFULL on STN
AN 2002:242791 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 20020131971 A1 20020919
AI US 2001-33528 A1 20011226 (10)
RLI Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)

US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l6 1 kwic

L6 ANSWER 1 OF 8 USPATFULL on STN
DRWD . . . portion of the target sequence 5, a second portion 42 that hybridizes to the capture probe 10 and a recruitment linker 50 comprising ETMs 6. A similar embodiment is shown in FIG. 6E, where the label probe 40 has an additional recruitment linker 50. FIG. 6F depicts a label probe 40 comprising a first portion 41 that hybridizes to a portion of the target sequence 5 and a recruitment linker 50 with attached ETMs 6. The parentheses highlight that for any particular target sequence 5 more than one label probe 40. . .
DRWD . . . portion 41 of the label probe 40 can hybridize to all (FIG. 6R) or part (FIG. 6Q) of the recruitment linker 50.
DRWD FIG. 11 depicts the synthetic scheme of a preferred attachment of an ETM, in this case ferrocene, to a nucleoside via the phosphate.
DRWD FIG. 13 depicts the synthesis of an insulator to the ribose of a nucleoside for attachment to an electrode.
DRWD . . . depicts a schematic of the synthesis of simultaneous incorporation of multiple ETMs into a nucleic acid, using a "branch" point nucleoside.
DRWD . . . and attachments of ETMs. In FIGS. 21A-C, the recruitment linker is nucleic acid; in FIGS. 21D and E, is not. A=nucleoside replacement; B=attachment to a base; C=attachment to a ribose; D=attachment to a phosphate; E=metallocene polymer (although as described herein, this. . .
DETD . . . al., Angew. Chem. Intl. Ed. English 30:423 (1991); Letsinger et al., J. Am. Chem. Soc. 110:4470 (1988); Letsinger et al., Nucleoside & Nucleotide 13:1597 (1994); Chapters 2 and 3, ASC Symposium Series 580, "Carbohydrate Modifications in Antisense Research", Ed. Y. S. Sanghui and. . .
DETD . . . sequences, as this reduces non-specific hybridization, as is generally described in U.S. Pat. No. 5,681,702. As used herein, the term "nucleoside" includes nucleotides as well as nucleoside and nucleotide analogs, and modified nucleosides such as amino modified nucleosides. In addition, " nucleoside" includes non-naturally occurring analog structures. Thus for example the individual units of a peptide nucleic acid, each

containing a base, are referred to herein as a nucleoside.

DETD . . . a conductive oligomer, as is more fully described below, the length of the conductive oligomer is such that the closest nucleotide of the nucleic acid is positioned from about 6 Å to about 100 Å (although distances of up to 500. . .

DETD . . . embodiment, the capture binding ligand is a nucleic acid, and the attachment is via attachment to the base of the nucleoside , via attachment to the backbone of the nucleic acid (either the ribose, the phosphate, or to an analogous group of. . .

DETD In a preferred embodiment, the conductive oligomer is attached to the base of a nucleoside of the nucleic acid. This may be done in several ways, depending on the otigomer, as is described below. In one embodiment, the oligomer is attached to a terminal nucleoside, i.e. either the 3' or 5' nucleoside of the nucleic acid. Alternatively, the conductive oligomer is attached to an internal nucleoside.

DETD . . . depicted herein may have hydrogen, hydroxy, phosphates or other groups such as amino groups attached. In addition, the pentose and nucleoside structures depicted herein are depicted non-conventionally, as mirror images of the normal rendering. In addition, the pentose and nucleoside structures may also contain additional groups, such as protecting groups, at any position, for example as needed during synthesis.

DETD . . . it should be understood that the site of attachment in this embodiment may be to a 3' or 5' terminal nucleotide, or to an internal nucleotide, as is more fully described below.

DETD . . . row transition metals are potential candidates as redox moieties that are covalently attached to either the ribose ring or the nucleoside base of nucleic acid. Other potentially suitable organometallic ligands include cyclic arenes such as benzene, to yield bis (arene)metal compounds. . .

DETD . . . be. The solution binding ligand either directly comprises a recruitment linker that comprises at least one ETM, or the recruitment linker is part of a label probe that will bind to the solution binding ligand.

DETD . . . via (1) a base; (2) the backbone, including the ribose, the phosphate, or comparable structures in nucleic acid analogs; (3) nucleoside replacement, described below; or (4) metallocene polymers, as described below. In a preferred embodiment, the recruitment linker is non-nucleic acid,. . .

DETD . . . in a variety of positions. Preferred embodiments include, but are not limited to, (1) attachment to the base of the nucleoside , (2) attachment of the ETM as a base replacement, (3) attachment to the backbone of the nucleic acid, including either. . .

DETD In a preferred embodiment, the ETM is attached to the base of a nucleoside as is generally outlined above for attachment of the conductive oligomer. Attachment can be to an internal nucleoside or a terminal nucleoside.

DETD . . . defined above. Again, it will be appreciated by those in the art, a linker ("Z") may be included between the nucleoside and the ETM.

DETD In a preferred embodiment, the ETM attached to a nucleoside is a metallocene; i.e. the L and L, of Structure 31 are both metallocene ligands, Lm, as described above. Structure. . .

DETD . . . any position of the ribose-phosphate backbone of the nucleic acid, i.e. either the 5' or 3' terminus or any internal nucleoside. Ribose in this case can include ribose analogs. As is known in the art, nucleosides that are modified at either. . .

DETD When the ETM is attached to the base or the backbone of the nucleoside, it is possible to attach the ETMs via "dendrimer" structures, as is more fully outlined below. As is generally depicted.

. . terminal hydroxy groups can then be used in phosphoramidite reactions to add ETMs, as is generally done below for the nucleoside replacement and metallocene polymer reactions.

DETD In a preferred embodiment, an ETM such as a metallocene is used as a " nucleoside replacement", serving as an ETM. For example, the distance between the two cyclopentadiene rings of ferrocene is similar to the. . .

DETD . . . depicts metallocenes, and particularly ferrocene, this same general idea can be used to add ETMs in addition to metallocenes, as nucleoside replacements or in polymer embodiments, described below. Thus, for example, when the ETM is a transition metal complex other than. . .

DETD . . . nucleic acids each made up of a traditional nucleic acid or analog (nucleic acids in this case including a single nucleoside), may be covalently attached to each other via a metallocene. Viewed differently, a metallocene derivative or substituted metallocene is provided,. . .

DETD . . . additional substituent groups to one or both of the aromatic rings of the metallocene (or ETM). For example, as these nucleoside replacements are generally part of probe sequences to be hybridized with a substantially complementary nucleic acid, for example a target. . .

DETD . . . as outlined in U.S. Pat. No. 5,124,246, using modified functionalized nucleotides. The general idea is as follows. A modified phosphoramidite nucleotide is generated that can ultimately contain a free hydroxy group that can be used in the attachment of phosphoramidite ETMs. . . will be appreciated by those in the art, nucleic acid analogs containing other structures can also be used). The modified nucleotide is incorporated into a nucleic acid, and any hydroxy protecting groups are removed, thus leaving the free hydroxyl. Upon the. . .

DETD . . . this general idea is outlined in the Figures. In this embodiment, the 2' position of a ribose of a phosphoramidite nucleotide is first functionalized to contain a protected hydroxy group, in this case via an oxo-linkage, although any number of linkers can be used, as is generally described herein for Z linkers. The protected modified nucleotide is then incorporated via standard phosphoramidite chemistry into a growing nucleic acid. The protecting group is removed, and the free. . .

DETD In a preferred embodiment, the recruitment linker is not nucleic acid, and instead may be any sort of linker or polymer. As will be appreciated by those in the art, generally any linker or polymer that can be modified to contain ETMs can be used. In general, the polymers or linkers should be reasonably soluble. . .

DETD In a preferred embodiment, the recruitment linker comprises a metallocene polymer, as is described above.

DETD . . . the solution binding ligand or the first portion of the label probe will depend on the composition of the recruitment linker and of the label and/or binding ligand, as will be appreciated by those in the art. When either the label probe or the binding. . .

DETD When non-nucleic acid recruitment linkers are used, attachment of the linker/polymer of the recruitment linker will be done generally using standard chemical techniques, such as will be appreciated by those in the art For example,. . .

DETD . . . when the target sequence itself is modified to contain a binding partner, the binding partner is attached via a modified nucleotide that can be enzymatically attached to the target sequence, for example during a PCR target amplification step. Alternatively, the binding. . .

DETD . . . oligonucleotide segments emanating from a point of origin to form a branched structure. The point of origin may be another

nucleotide segment or a multifunctional molecule to which at least three segments can be covalently or tightly bound. "Comb-like" branched amplifier. . . multiplicity of sidechain oligonucleotides extending from the backbone. In either conformation, the pendant segments will normally depend from a modified nucleotide or other organic moiety having the appropriate functional groups for attachment of oligonucleotides. Furthermore, in either conformation, a large number. . .

DETD The compositions may be made in several ways. A preferred method first synthesizes a conductive oligomer attached to a nucleoside, with addition of additional nucleosides to form the capture probe followed by attachment to the electrode. Alternatively, the whole capture. . .

DETD . . . a preferred embodiment, the compositions of the invention are made by first forming the conductive oligomer covalently attached to the nucleoside, followed by the addition of additional nucleosides to form a capture probe nucleic acid, with the last step comprising the. . .

DETD The attachment of the conductive oligomer to the nucleoside may be done in several ways. In a preferred embodiment, all or part of the conductive oligomer is synthesized first (generally with a functional group on the end for attachment to the electrode), which is then attached to the nucleoside. Additional nucleosides are then added as required, with the last step generally being attachment to the electrode. Alternatively, oligomer units are added one at a time to the nucleoside, with addition of additional nucleosides and attachment to the electrode. A number of representative syntheses are shown in the Figures. . .

DETD The conductive oligomer is then attached to a nucleoside that may contain one (or more) of the oligomer units, attached as depicted herein.

DETD Alternatively, attachment to the base may be done by making the nucleoside with one unit of the oligomer, followed by the addition of others.

DETD . . . DNA polymerase, T7 DNA polymerase, Taq DNA polymerase, reverse transcriptase, and RNA polymerases. For the incorporation of a 3' modified nucleoside to a nucleic acid, terminal deoxynucleotidyltransferase may be used. (Ratliff, Terminal deoxynucleotidyltransferase. In The Enzymes, Vol 14A. P. D. Boyer. . .

DETD In a preferred embodiment, the modified nucleoside is converted to the phosphoramidite or Hphosphonate form, which are then used in solid-phase or solution syntheses of oligonucleotides. In this way the modified nucleoside, either for attachment at the ribose (i.e. amino- or thiol-modified nucleosides) or the base, is incorporated into the oligonucleotide at. . .

DETD For attachment of a group to the 3' terminus, a preferred method utilizes the attachment of the modified nucleoside (or the nucleoside replacement) to controlled pore glass (CPG) or other oligomeric supports. In this embodiment, the modified nucleoside is protected at the Vend with DIVIT, and then reacted with succinic anhydride with activation. The resulting succinyl compound is. . .

DETD . . . used as the ETM, synthesis may occur in several ways. In a preferred embodiment, the ligand(s) are added to a nucleoside, followed by the transition metal ion, and then the nucleoside with the transition metal complex attached is added to an oligonucleotide, i.e. by addition to the nucleic acid synthesizer. Alternatively,. . .

DETD In a preferred embodiment, ETMs are attached to a base of the nucleoside. This may be done in a variety of ways. In one embodiment, amino groups of the base, either naturally occurring. . .

DETD . . . subunits, and thus additional subunits are attached to form

the conductive oligomer. The conductive oligomer is then attached to a nucleoside, and additional nucleosides attached. The protecting group is then removed and the sulfur-gold covalent attachment is made. Alternatively, all or. . . atom is added, or a sulfur atom is added and then protected. The conductive oligomer is then attached to a nucleoside, and additional nucleosides attached. Alternatively, the conductive oligomer attached to a nucleic acid is made, and then either a subunit. . .

DETD . . . trimethylsilylethyl group to a sulfhydryl; 2) adding additional subunits to form the conductive oligomer; 3) adding at least a first nucleoside to the conductive oligomer; 4) adding additional nucleosides to the first nucleoside to form a nucleic acid; 5) attaching the conductive oligomer to the gold electrode. This may also be done in. . .

DETD . . . the PNA. By "monomeric subunit of PNA" herein is meant the --NH--CH.sub.2--CH.sub.2--N(COCH.sub.2-Base)-CH.sub.2--CO-monomer, or derivatives (herein included within the definition of " nucleoside") of PNA. For example, the number of carbon atoms in the PNA backbone may be altered; see generally Nielsen et. . .

DETD Synthesis of Nucleoside Modified with Ferrocene at the 2' Position

DETD Synthesis of "Branched" Nucleoside

DETD Synthesis of Nucleoside with Ferrocene Attached Via a Phosphate

DETD Synthesis of Nucleoside Attached to an Insulator

DETD . . . sequence MT1 (SEQ ID NO:18) was added, that comprises a sequence complementary to D112 (SEQ ID NO:7) and a 20 base sequence complementary to the label probe D358 (SEQ ID NO:19) were combined; in this case, the label probe D358 (SEQ ID NO:19) was added to. . .

DETD . . . target sequence LP280 (SEQ ID NO:22) was added, that comprises a sequence complementary to the capture probe and a 20 base sequence complementary to the label probe D335 (SEQ ID NO:21) were combined; in this case, the label probe D335 (SEQ ID NO:21) was added to. . .

=> d his

(FILE 'HOME' ENTERED AT 11:49:49 ON 04 JUL 2010)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:50:31 ON 04 JUL 2010

L1 4804 S (NUCLEOTIDE OR NUCLEOSIDE) AND BASE (4A) (LABEL? OR MARKER OR
L2 531 S L1 AND LINKER (4A) (LABEL? OR MARKER OR DYE)
L3 27 S L2 AND LINKER (6A) POLYMER
L4 0 S L3 AND WATER SOLUBLE POLYMER
L5 8 S L3 AND LINKER (4A) 50
L6 8 DUP REM L5 (0 DUPLICATES REMOVED)

=> s l3 not l6
L7 19 L3 NOT L6

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 19 DUP REM L7 (0 DUPLICATES REMOVED)

=> d l8 bib abs 1-19

L8 ANSWER 1 OF 19 USPATFULL on STN
AN 2009:232895 USPATFULL

TI Alternate labeling strategies for single molecule sequencing
IN Korlach, Jonas, Newark, CA, UNITED STATES
Roitman, Daniel, Menlo Park, CA, UNITED STATES
Eid, John, San Francisco, CA, UNITED STATES
Otto, Geoff, San Carlos, CA, UNITED STATES
Hardenbol, Paul, San Francisco, CA, UNITED STATES
Flusberg, Benjamin, Palo Alto, CA, UNITED STATES
PA Pacific Biosciences of California, Inc., Menlo Park, CA, UNITED STATES (U.S. corporation)
PI US 20090208957 A1 20090820
AI US 2008-315626 A1 20081203 (12)
PRAI US 2007-5407P 20071204 (61)
DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501, US
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 2173
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Systems and methods of enhancing fluorescent labeling strategies as well as systems and methods of using non-fluorescent and/or non-optic labeling strategies, e.g., as with single molecule sequencing using ZMWs, are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 19 USPATFULL on STN
AN 2006:167005 USPATFULL
TI Chemical amplification for the synthesis of patterned arrays
IN Beecher, Jody E., Mountain View, CA, UNITED STATES
Goldberg, Martin J., San Jose, CA, UNITED STATES
McGall, Glenn H., Mountain View, CA, UNITED STATES
PA Affymetrix, Inc, Santa Clara, CA, UNITED STATES (U.S. corporation)
PI US 20060141511 A1 20060629
AI US 2005-291248 A1 20051201 (11)
RLI Continuation of Ser. No. US 2004-840841, filed on 7 May 2004, PENDING
Continuation of Ser. No. US 2000-578282, filed on 25 May 2000, GRANTED, Pat. No. US 6770436 Continuation of Ser. No. US 1997-969227, filed on 13 Nov 1997, GRANTED, Pat. No. US 6083697
PRAI US 1996-30826P 19961114 (60)
DT Utility
FS APPLICATION
LREP BANNER & WITCOFF LTD.,, COUNSEL FOR AFFYMETRIX, 1001 G STREET , N.W., ELEVENTH FLOOR, WASHINGTON, DC, 20001-4597, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1-51
DRWN 7 Drawing Page(s)
LN.CNT 1217
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Radiation-activated catalysts (RACs), autocatalytic reactions, and protective groups are employed to achieve a highly sensitive, high resolution, radiation directed combinatorial synthesis of pattern arrays of diverse polymers. When irradiated, RACs produce catalysts that can react with enhancers, such as those involved in autocatalytic reactions. The autocatalytic reactions produce at least one product that removes protecting groups from synthesis intermediates. This invention has a wide variety of applications and is particularly useful for the solid phase combinatorial synthesis of polymers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 19 USPATFULL on STN
AN 2006:101389 USPATFULL
TI Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
IN Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
PA Diversa Corporation, San Diego, CA, UNITED STATES (U.S. corporation)
PI US 7033781 B1 20060425
AI US 2000-677584 20000930 (9)
RLI Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-552289, filed on 9 Mar 2000, Pat. No. US 6358709 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, PENDING
PRAI US 1999-156815P 19990929 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Park, Hankyel T.
LREP Love, Jane M., Hale and Dorr LLP
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 30 Drawing Figure(s); 28 Drawing Page(s)
LN.CNT 36686
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An invention comprising cellular transformation, directed evolution, and screening methods for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a method of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially activatable. Also, a method of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a method of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 19 USPATFULL on STN
AN 2005:62926 USPATFULL
TI Amplification of nucleic acids with electronic detection
IN Blackburn, Gary, Glendora, CA, UNITED STATES
Irvine, Bruce D., Glendora, CA, UNITED STATES
Kayyem, Jon Faiz, Pasadena, CA, UNITED STATES
Sheldon, Edward Lewis, III, Arcadia, CA, UNITED STATES
Terbrueggen, Robert H., Manhattan Beach, CA, UNITED STATES
PI US 20050053962 A1 20050310
AI US 2004-746904 A1 20041115 (10)
RLI Continuation of Ser. No. US 2000-621275, filed on 20 Jul 2000, GRANTED, Pat. No. US 6686150 Continuation-in-part of Ser. No. US 1999-238351, filed on 27 Jan 1999, PENDING Continuation-in-part of Ser. No. US 1998-14304, filed on 27 Jan 1998, GRANTED, Pat. No. US 6063573 Continuation-in-part of Ser. No. US 1998-135183, filed on 17 Aug 1998, PENDING
DT Utility
FS APPLICATION
LREP DORSEY & WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT, 4 EMBARCADERO CENTER, SUITE 3400, SAN FRANCISCO, CA, 94111

CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 66 Drawing Page(s)
LN.CNT 6587
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to compositions and methods useful in the detection of nucleic acids using a variety of amplification techniques, including both signal amplification and target amplification. Detection proceeds through the use of an electron transfer moiety (ETM) that is associated with the nucleic acid, either directly or indirectly, to allow electronic detection of the ETM using an electrode.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 19 USPATFULL on STN
AN 2004:101228 USPATFULL
TI Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
IN Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
PI US 20040077090 A1 20040422
AI US 2003-383798 A1 20030306 (10)
RLI Continuation of Ser. No. US 2000-677584, filed on 30 Sep 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000, GRANTED, Pat. No. US 6605449 Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US 6479258
PRAI US 1999-156815P 19990929 (60)
DT Utility
FS APPLICATION
LREP HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 28 Drawing Page(s)
LN.CNT 37121
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An invention comprising cellular transformation, directed evolution, and screening methods for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a method of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially activatable. Also, a method of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a method of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 19 USPATFULL on STN
AN 2004:27054 USPATFULL
TI Amplification of nucleic acids with electronic detection
IN Blackburn, Gary, Glendora, CA, United States
Irvine, Bruce D., Glendora, CA, United States
Kayyem, Jon Faiz, Pasadena, CA, United States
Sheldon, III, Edward Lewis, Arcadia, CA, United States
Terbrueggen, Robert H., Manhattan Beach, CA, United States

PA Clinical Micro Sensors, Inc., Pasadena, CA, United States (U.S. corporation)
PI US 6686150 B1 20040203
AI US 2000-621275 20000720 (9)
RLI Continuation-in-part of Ser. No. US 1999-238351, filed on 27 Jan 1999 Continuation of Ser. No. US 1998-14304, filed on 27 Jan 1998, now patented, Pat. No. US 6063573 Continuation of Ser. No. US 1998-135183, filed on 17 Aug 1998
PRAI US 1999-144698P 19990720 (60)
US 1998-84425P 19980506 (60)
US 1998-84509P 19980506 (60)
US 1998-28102P 19980316 (60)
US 1998-73011P 19980129 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Dorsey & Whitney LLP, Silva, Robin M., Kosslak, Renee M.
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 104 Drawing Figure(s); 66 Drawing Page(s)
LN.CNT 7336
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to compositions and methods useful in the detection of nucleic acids using a variety of amplification techniques, including both signal amplification and target amplification. Detection proceeds through the use of an electron transfer moiety (ETM) that is associated with the nucleic acid, either directly or indirectly, to allow electronic detection of the ETM using an electrode.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 19 USPATFULL on STN
AN 2003:127016 USPATFULL
TI ELECTRONIC DETECTION OF NUCLEIC ACIDS USING MONOLAYERS
IN BAMDAD, CYNTHIA, SHARON, MA, UNITED STATES
YU, CHANGJUN, PASADENA, CA, UNITED STATES
PI US 20030087228 A1 20030508
AI US 1999-245105 A1 19990127 (9)
PRAI US 1998-84425P 19980506 (60)
US 1998-84509P 19980506 (60)
DT Utility
FS APPLICATION
LREP FLEHR HOHBACH TEST ALBRITTON & HERBERT, ROBIN M SILVA, SUITE 3400 FOUR EMBARCADERO CENTER, SAN FRANCISCO, CA, 941114187
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 50 Drawing Page(s)
LN.CNT 4573
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to the electronic detection of nucleic acids using self-assembled monolayers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 19 USPATFULL on STN
AN 2003:51108 USPATFULL
TI Method and system for array signal generation and amplification
IN Gellibolian, Robert, Fremont, CA, UNITED STATES
PI US 20030036065 A1 20030220
AI US 2001-932728 A1 20010817 (9)
DT Utility

FS APPLICATION
LREP AGILENT TECHNOLOGIES, INC., Intellectual Property Administration, Legal Department, DL429, P.O. Box 7599, Loveland, CO, 80537-0599
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 16 Drawing Page(s)
LN.CNT 885
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and system for signal generation and signal amplification from an array containing bound, unlabeled target molecules. Following exposure of the array to a sample solution containing unlabaled target RNA molecules, blunt ends are generated on each probe/target double-stranded hybrid labeled primer oligonucleotide linker is then bound to the blunt ends. Next, in an iterative, inner process, additional layers of labeled oligonucleotide, linkers are added, shell-by-shell, to form a dendrimer-like molecular complex bound through the oligonucleotide linker to the probe/target hybrid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 19 USPATFULL on STN
AN 2002:221316 USPATFULL
TI Methods and products for analyzing polymers
IN Chan, Eugene Y., Brookline, MA, UNITED STATES
PI US 20020119455 A1 20020829
AI US 2001-852968 A1 20010510 (9)
RLI Division of Ser. No. US 1998-134411, filed on 13 Aug 1998, PATENTED
PRAI WO 1998-US3024 19980211
  US 1997-64687P 19971105 (60)
  US 1997-37921P 19970212 (60)
DT Utility
FS APPLICATION
LREP Helen C. Lockhart, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA, 02210
CLMN Number of Claims: 159
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 6864
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and products for analyzing polymers are provided. The methods include methods for determining various other structural properties of the polymers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 19 USPATFULL on STN
AN 2002:12264 USPATFULL
TI AMPLIFICATION OF NUCLEIC ACIDS WITH ELECTRONIC DETECTION
IN KAYYEM, JON FAIZ, PASADENA, CA, UNITED STATES
  BAMDAD, CYNTHIA, SAN MARINO, CA, UNITED STATES
PI US 20020006643 A1 20020117
  US 7090804 B2 20060815
AI US 1999-238351 A1 19990127 (9)
RLI Continuation of Ser. No. US 1998-14304, filed on 27 Jan 1998, GRANTED, Pat. No. US 6063573 Continuation of Ser. No. US 1998-135183, filed on 17 Aug 1998, PENDING
PRAI US 1998-84425P 19980506 (60)
  US 1998-84509P 19980506 (60)
  US 1996-28102P 19961009 (60)
  US 1998-73011P 19980129 (60)
DT Utility

FS APPLICATION
LREP FLEHR HOHBACH TEST ALBRITTON & HERBERT, SUITE 3400, FOUR EMBARCADERO CENTER, SAN FRANCISCO, CA, 941114187
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 60 Drawing Page(s)
LN.CNT 5702
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to compositions and methods useful in the detection of nucleic acids using a variety of amplification techniques, including both signal amplification and target amplification. Detection proceeds through the use of an electron transfer moiety (ETM) that is associated with the nucleic acid, either directly or indirectly, to allow electronic detection of the ETM using an electrode.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 19 USPATFULL on STN
AN 2002:50774 USPATFULL
TI Methods and products for analyzing polymers
IN Chan, Eugene Y., Brookline, MA, United States
PA US Genomics, Woburn, MA, United States (U.S. corporation)
PI US 6355420 B1 20020312
AI US 1998-134411 19980813 (9)
RLI Continuation of Ser. No. WO 1998-US3024, filed on 11 Feb 1998
PRAI US 1997-37921P 19970212 (60)
US 1997-64687P 19971105 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Taylor, Janell E.
LREP Wolf, Greenfield & Sacks, P.C.
CLMN Number of Claims: 123
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 10 Drawing Page(s)
LN.CNT 6818
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and products for analyzing polymers are provided. The methods include methods for determining various other structural properties of the polymers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 19 USPATFULL on STN
AN 2001:67866 USPATFULL
TI Synthesis of fluorinated xanthene derivatives
IN Klaubert, Dieter H., Sunnyvale, CA, United States
Gee, Kyle R., Eugene, OR, United States
PA Molecular Probes, Inc., Eugene, OR, United States (U.S. corporation)
PI US 6229055 B1 20010508
AI US 2000-632251 20000803 (9)
RLI Division of Ser. No. US 1996-631202, filed on 12 Apr 1996, now patented, Pat. No. US 6162931
DT Utility
FS Granted
EXNAM Primary Examiner: Shippen, Michael L.
LREP Helfenstein, Allega T.
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 4318
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Facile syntheses for fluorinated resorcinol and aminophenol derivatives are provided that yield isomer-free products in good yield. These novel methods use generally available precursors and standard laboratory reagents and equipment to reproducibly produce these synthetically useful reagents in relatively large quantities. The resulting fluorinated resorcinols and aniinophenols possess utility in the preparation of fluorinated fluorescein and rhodol dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 19 USPATFULL on STN
AN 2001:1856 USPATFULL
TI PNA probes for detection of Neisseria gonorrhoeae and Chlamydia trachomatis
IN Hyldig-Nielsen, Jens J.o slashed.rgen, Vanl.o slashed.se, Denmark
Godskesen, Michael Anders, Vedb.ae butted.k, Denmark
PA DAKO A/S, Glostrup, Denmark (non-U.S. corporation)
PI US 6169169 B1 20010102
AI US 1995-443930 19950518 (8)
PRAI DK 1994-572 19940519
DT Utility
FS Granted
EXNAM Primary Examiner: Riley, Jezia
LREP Graham & James LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1440
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Specific peptide nucleic acid (PNA) probes for detecting a sexual transmitted disease caused by Neisseria gonorrhoeae or Chlamydia trachomatis comprising N-(2-aminoethyl)glycine units in amide linkage with the glycine nitrogen connected to naturally occurring nucleobases or non-naturally occurring nucleobases by a methylene carbonyl linker and said probes capable of hybridizing to 16S or 23S rRNA or rDNA of Neisseria gonorrhoeae or Chlamydia trachomatis are described. PNA is a very stable molecule with very high affinity for nucleic acid allowing a PNA probe to be shorter than conventional nucleic acid probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 19 USPATFULL on STN
AN 2000:171155 USPATFULL
TI Fluorinated xanthene derivatives
IN Gee, Kyle R., Springfield, OR, United States
Poot, Martin, Eugene, OR, United States
Klaubert, Dieter H., Eugene, OR, United States
Sun, Wei-Chuan, Eugene, OR, United States
Haugland, Richard P., Eugene, OR, United States
Mao, Fei, Eugene, OR, United States
PA Molecular Probes, Inc., Eugene, OR, United States (U.S. corporation)
PI US 6162931 20001219
AI US 1996-631202 19960412 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Riley, Jezia
LREP Skaugset, Anton E., Helfenstein, Allegra J.
CLMN Number of Claims: 107
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 5371

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The family of dyes of the invention are fluoresceins and rhodols that are directly substituted on one or more aromatic carbons by fluorine. These fluorine-substituted fluorescent dyes possess greater photostability and have lower sensitivity to pH changes in the physiological range of 6-8 than do non-fluorinated dyes, exhibit less quenching when conjugated to a substance, and possess additional advantages. The dyes of the invention are useful as detectable tracers and for preparing conjugates of organic and inorganic substances.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 19 USPATFULL on STN
AN 2000:24765 USPATFULL
TI Non-nucleotide linking reagents for nucleotide probes
IN Arnold, Jr., Lyle J., Poway, CA, United States
Reynolds, Mark A., Lafayette, CO, United States
Bhatt, Ram S., San Diego, CA, United States
PA Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)
PI US 6031091 20000229
AI US 1997-908535 19970807 (8)
RLI Continuation-in-part of Ser. No. US 1995-485629, filed on 7 Jun 1995, now patented, Pat. No. US 5696251 which is a division of Ser. No. US 1994-182666, filed on 14 Jan 1994, now patented, Pat. No. US 5585481 which is a continuation of Ser. No. US 1989-319422, filed on 6 Mar 1989, now abandoned which is a continuation-in-part of Ser. No. US 1987-99050, filed on 21 Sep 1987, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Lyon & Lyon LLP
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 1547
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A versatile reagent with a non-nucleotide monomeric unit having a ligand, and first and second coupling groups which are linked to the non-nucleotide monomeric unit. The ligand can be either a chemical moiety, such as a label or intercalator, or a linking arm which can be linked to such a moiety. Such reagent permits preparation of versatile nucleotide/non-nucleotide polymers, having any desired sequence of nucleotide and non-nucleotide monomeric units, each of the latter of which bear a desired ligand. These polymers can for example, be used as probes which can exhibit enhanced sensitivity and/or which are capable of detecting a genus of nucleotides each species of which has a common target nucleotide sequence of interest bridged by different sequences not of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 19 USPATFULL on STN
AN 1999:146263 USPATFULL
TI Detection of Ribosomal RNA using PNA probes
IN Hyldig-Nielsen, Jens J.o slashed.rgen, Vanl.o slashed.se, Denmark
Godskesen, Michael Anders, Vedb.ae butted.k, Denmark
PA Dako A/S, Glostrup, Denmark (non-U.S. corporation)
PI US 5985563 19991116
AI US 1997-869454 19970605 (8)

RLI Division of Ser. No. US 1995-443930, filed on 18 May 1995
PRAI DK 1994-572 19940519
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.; Assistant Examiner: Riley, Jezia
LREP Graham & James LLP
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1564
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB PNA probes for detection of Neisseria gonorrhoeae and Chlamydia trachomatis.

Specific peptide nucleic acid (PNA) probes for detecting a sexual transmitted disease caused by Neisseria gonorrhoeae or Chlamydia trachomatis comprising N-(2-aminoethyl)glycine units in amide linkage with the glycine nitrogen connected to naturally occurring nucleobases or non-naturally occurring nucleobases by a methylene carbonyl linker and said probes capable of hybridizing to 16S or 23S rRNA or rDNA of Neisseria gonorrhoeae or Chlamydia trachomatis are described.

PNA is a very stable molecule with very high affinity for nucleic acid allowing a PNA probe to be shorter than conventional nucleic acid probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 19 USPATFULL on STN
AN 97:115408 USPATFULL
TI Non-nucleotide linking reagents for nucleotide probes
IN Arnold, Jr., Lyle J., San Diego, CA, United States
Reynolds, Mark A., San Diego, CA, United States
Bhatt, Ram S., San Diego, CA, United States
PA Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)
PI US 5696251 19971209
AI US 1995-485629 19950607 (8)
RLI Continuation of Ser. No. US 1994-182666, filed on 14 Jan 1994, now patented, Pat. No. US 5585481 which is a continuation of Ser. No. US 1989-319422, filed on 6 Mar 1989, now abandoned which is a continuation-in-part of Ser. No. US 1987-99050, filed on 21 Sep 1987, now abandoned
PRAI PT 1988-88550 19880920
DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Lyon & Lyon LLP
CLMN Number of Claims: 49
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 1601
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A versatile reagent with a non-nucleotide monomeric unit having a ligand, and first and second coupling groups which are linked to the non-nucleotide monomeric unit. The ligand can be either a chemical moiety, such as a label or intercalator, or a linking arm which can be linked to such a moiety. Such reagent permits preparation of versatile nucleotide/non-nucleotide polymers, having any desired sequence of nucleotide and non-nucleotide monomeric units, each of the latter of which bear a

desired ligand. These polymers can for example, be used as probes which can exhibit enhanced sensitivity and/or which are capable of detecting a genus of nucleotides each species of which has a common target nucleotide sequence of interest bridged by different sequences not of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 19 USPATFULL on STN
AN 97:71177 USPATFULL
TI Methods for making nucleotide polymers using novel linking reagents
IN Arnold, Jr., Lyle J., San Diego, CA, United States
Reynolds, Mark A., San Diego, CA, United States
Bhatt, Ram S., San Diego, CA, United States
PA Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)
PI US 5656744 19970812
AI US 1995-490109 19950607 (8)
RLI Division of Ser. No. US 1994-182666, filed on 14 Jan 1994, now patented, Pat. No. US 5585481 which is a continuation of Ser. No. US 1989-319422, filed on 6 Mar 1989, now abandoned which is a continuation-in-part of Ser. No. US 1987-99050, filed on 21 Sep 1987, now abandoned
PRAI PT 1988-88550 19880920
DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Lyon & Lyon LLP
CLMN Number of Claims: 51
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 1717
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A versatile reagent with a non-nucleotide monomeric unit having a ligand, and first and second coupling groups which are linked to the non-nucleotide monomeric unit. The ligand can be either a chemical moiety, such as a label or intercalator, or a linking arm which can be linked to such a moiety. Such reagent permits preparation of versatile nucleotide/non-nucleotide polymers, having any desired sequence of nucleotide and non-nucleotide monomeric units, each of the latter of which bear a desired ligand. These polymers can for example, be used as probes which can exhibit enhanced sensitivity and/or which are capable of detecting a genus of nucleotides each species of which has a common target nucleotide sequence of interest bridged by different sequences not of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 19 USPATFULL on STN
AN 96:116488 USPATFULL
TI Linking reagents for nucleotide probes
IN Arnold, Jr., Lyle J., San Diego, CA, United States
Reynolds, Mark A., San Diego, CA, United States
Bhatt, Ram S., San Diego, CA, United States
PA Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)
PI US 5585481 19961217
AI US 1994-182666 19940114 (8)
RLI Continuation of Ser. No. US 1989-319422, filed on 6 Mar 1989, now abandoned which is a continuation-in-part of Ser. No. US 1987-99050, filed on 21 Sep 1987, now abandoned
PRAI PT 1988-88550 19880920

DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Lyon & Lyon
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 20 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 1715
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A versatile reagent with a non-nucleotide monomeric unit having a ligand, and first and second coupling groups which are linked to the non-nucleotide monomeric unit. The ligand can be either a chemical moiety, such as a label or intercalator, or a linking arm which can be linked to such a moiety. Such reagent permits preparation of versatile nucleotide/non-nucleotide polymers, having any desired sequence of nucleotide and non-nucleotide monomeric units, each of the latter of which bear a desired ligand. These polymers can for example, be used as probes which can exhibit enhanced sensitivity and/or which are capable of detecting a genus of nucleotides each species of which has a common target nucleotide sequence of interest bridged by different sequences not of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 11:49:49 ON 04 JUL 2010)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:50:31 ON 04 JUL 2010
L1 4804 S (NUCLEOTIDE OR NUCLEOSIDE) AND BASE (4A) (LABEL? OR MARKER OR
L2 531 S L1 AND LINKER (4A) (LABEL? OR MARKER OR DYE)
L3 27 S L2 AND LINKER (6A) POLYMER
L4 0 S L3 AND WATER SOLUBLE POLYMER
L5 8 S L3 AND LINKER (4A) 50
L6 8 DUP REM L5 (0 DUPLICATES REMOVED)
L7 19 S L3 NOT L6
L8 19 DUP REM L7 (0 DUPLICATES REMOVED)

=> s l2 and polymer (5a) water soluble
L9 9 L2 AND POLYMER (5A) WATER SOLUBLE

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 9 DUP REM L9 (0 DUPLICATES REMOVED)

=> d l10 bib abs 1-9

L10 ANSWER 1 OF 9 USPATFULL on STN
AN 2004:94757 USPATFULL
TI Methods of labelling polynucleotides with dibenzorhodamine dyes
IN Benson, Scott C., Alameda, CA, UNITED STATES
Lam, Joe Y.L., Castro Valley, CA, UNITED STATES
Menchen, Steven Micheal, Fremont, CA, UNITED STATES
PA Applera Corporation, Foster City, CA, UNITED STATES, 94404 (U.S. corporation)
PI US 20040072209 A1 20040415
US 6919445 B2 20050719
AI US 2003-441950 A1 20030520 (10)

RLI Continuation of Ser. No. US 2001-969430, filed on 2 Oct 2001, GRANTED, Pat. No. US 6566071 Division of Ser. No. US 2001-784943, filed on 14 Feb 2001, GRANTED, Pat. No. US 6326153 Continuation of Ser. No. US 2000-556040, filed on 20 Apr 2000, GRANTED, Pat. No. US 6221606 Division of Ser. No. US 1998-199402, filed on 24 Nov 1998, GRANTED, Pat. No. US 6111116 Division of Ser. No. US 1997-978775, filed on 25 Nov 1997, GRANTED, Pat. No. US 5936087
DT Utility
FS APPLICATION
LREP MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404
CLMN Number of Claims: 106
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 1704
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1##

are disclosed, including nitrogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2##

including nitrogen- and aryl-substituted forms thereof, and a second intermediate having the structure ##STR3##

including nitrogen- and aryl-substituted forms thereof, wherein substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alkyl, carboxylic acid, sulfonic acid, --CH.sub.2OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 2 OF 9 USPATFULL on STN
AN 2002:60927 USPATFULL
TI Methods of labelling polynucleotides with dibenzorhodamine dyes
IN Benson, Scott C., Alameda, CA, UNITED STATES
Lam, Joe Y.L., Castro Valley, CA, UNITED STATES
Menchen, Steven Michael, Fremont, CA, UNITED STATES
PA The Perkin-Elmer Corporation, Foster City, CA, UNITED STATES, 94404 (U.S. corporation)
PI US 20020034761 A1 20020321
US 6566071 B2 20030520
AI US 2001-969430 A1 20011002 (9)
RLI Division of Ser. No. US 2001-784943, filed on 14 Feb 2001, PENDING Continuation of Ser. No. US 2000-556040, filed on 20 Apr 2000, GRANTED, Pat. No. US 6221606 Division of Ser. No. US 1998-199402, filed on 24 Nov 1998, GRANTED, Pat. No. US 6111116 Division of Ser. No. US 1997-978775, filed on 25 Nov 1997, GRANTED, Pat. No. US 5936087
DT Utility
FS APPLICATION
LREP PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404
CLMN Number of Claims: 106
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 1703
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Dibenzorhodamine compounds having the structure ##STR1##

are disclosed, including nitrogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2##

including nitrogen- and aryl-substituted forms thereof, and a second intermediate having the structure ##STR3##

including nitrogen- and aryl-substituted forms thereof, where in substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alkyl, carboxylic acid, sulfonic acid, --CH.sub.2OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 9 USPATFULL on STN
AN 2001:123631 USPATFULL
TI Polynucleotides labeled with dibenzorhodamine dyes
IN Benson, Scott C., Alameda, CA, United States
Lam, Joe Y.L., Castro Valley, CA, United States
Menchen, Steven Michael, Fremont, CA, United States
PA The Perkin-Elmer Corporation (U.S. corporation)
PI US 20010011139 A1 20010802
US 6326153 B2 20011204
AI US 2001-784943 A1 20010214 (9)
RLI Continuation of Ser. No. US 2000-556040, filed on 20 Apr 2000, GRANTED, Pat. No. US 6221606 Division of Ser. No. US 1998-199402, filed on 24 Nov 1998, GRANTED, Pat. No. US 6111116 Division of Ser. No. US 1997-978775, filed on 25 Nov 1997, GRANTED, Pat. No. US 5936087
DT Utility
FS APPLICATION
LREP PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404
CLMN Number of Claims: 106
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 1687
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1##

are disclosed, including nitogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2##

including nitrogen- and aryl-substituted forms thereof, and a second intermediate having the structure ##STR3##

including nitrogen- and aryl-substituted forms thereof, wherein substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alkyl, carboxylic acid, sulfonic acid, --CH.sub.2OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 9 USPATFULL on STN
AN 2001:59629 USPATFULL
TI Dibenzorhodamine dyes
IN Benson, Scott C., Foster City, CA, United States
Lam, Joe Y. L., Foster City, CA, United States
Menchen, Steven Michael, Foster City, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6221606 B1 20010424
AI US 2000-556040 20000420 (9)
RLI Division of Ser. No. US 1998-199402, filed on 24 Nov 1998, now patented, Pat. No. US 6111116 Division of Ser. No. US 1997-978775, filed on 25 Nov 1997, now patented, Pat. No. US 5936087
DT Utility
FS Granted
EXNAM Primary Examiner: Davis, Zinna Northington
LREP Andrus, Alex, Grossman, Paul D.
CLMN Number of Claims: 52
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1526
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1##

are disclosed, including nitogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2##

including nitrogen- and aryl-substituted forns thereof, and a second intermediate having the structure ##STR3##

including nitrogen- and aryl-substituted forms thereof, wherein substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alky, carboxylic acid, sulfonic acid, --CH.sub.2 OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 9 USPATFULL on STN
AN 2001:1856 USPATFULL
TI PNA probes for detection of Neisseria gonorrhoeae and Chlamydia trachomatis
IN Hyldig-Nielsen, Jens J.o slashed.rgen, Vanl.o slashed.se, Denmark
Godskesen, Michael Anders, Vedb.ae butted.k, Denmark
PA DAKO A/S, Glostrup, Denmark (non-U.S. corporation)
PI US 6169169 B1 20010102
AI US 1995-443930 19950518 (8)
PRAI DK 1994-572 19940519
DT Utility
FS Granted
EXNAM Primary Examiner: Riley, Jezia
LREP Graham & James LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings

LN.CNT 1440
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Specific peptide nucleic acid (PNA) probes for detecting a sexual transmitted disease caused by Neisseria gonorrhoeae or Chlamydia trachomatis comprising N-(2-aminoethyl)glycine units in amide linkage with the glycine nitrogen connected to naturally occurring nucleobases or non-naturally occurring nucleobases by a methylene carbonyl linker and said probes capable of hybridizing to 16S or 23S rRNA or rDNA of Neisseria gonorrhoeae or Chlamydia trachomatis are described. PNA is a very stable molecule with very high affinity for nucleic acid allowing a PNA probe to be shorter than conventional nucleic acid probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 9 USPATFULL on STN
AN 2000:114142 USPATFULL
TI Dibenzorhodamine dyes
IN Benson, Scott C., Foster City, CA, United States
Lam, Joe Y. L., Foster City, CA, United States
Menchen, Steven Michael, Foster City, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6111116 20000829
AI US 1998-199402 19981124 (9)
RLI Division of Ser. No. US 1997-978775, filed on 25 Nov 1997, now patented, Pat. No. US 5936087
DT Utility
FS Granted
EXNAM Primary Examiner: Davis, Zinna Northington
LREP Grossman, Paul D., Andrus, Alex
CLMN Number of Claims: 44
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1501
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1## are disclosed, including nitogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2## including nitrogen- and aryl-substituted forms thereof, and a second intermediate having the structure ##STR3## including nitrogen- and aryl-substituted forms thereof, wherein substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alkyl, carboxylic acid, sulfonic acid, --CH.sub.2 OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodarnine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 9 USPATFULL on STN
AN 2000:47376 USPATFULL
TI Dibenzorhodamine dyes
IN Benson, Scott Conrad, Oakland, CA, United States
Lam, Joe Y. L., Castro Valley, CA, United States
Upadhya, Krishna Gajanan, Union City, CA, United States
Radel, Peggy Ann, Berkeley, CA, United States
Zhen, Weiguo, Foster City, CA, United States
Menchen, Steven Michael, Fremont, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S.

corporation)
PI US 6051719 20000418
AI US 1998-193374 19981117 (9)
RLI Continuation-in-part of Ser. No. US 1997-978775, filed on 25 Nov 1997, now patented, Pat. No. US 5936087
DT Utility
FS Granted
EXNAM Primary Examiner: Davis, Zinna Northington
LREP Andrus, Alex, Grossman, Paul D.
CLMN Number of Claims: 51
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1852
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1## are disclosed, including nitogen- and aryl-substituted forms thereof. In addition, intermediates useful for synthesizing such compounds are disclosed, such intermediates having the structure ##STR2## In Formula I, R.sub.1 is H or ##STR3## wherein Y is H, lower alkyl, lower alkene, lower alkyne, aromatic, phenyl, polycyclic aromatic, heterocycle, water-solubilizing group, or linking group, including substituted forms thereof. When R.sub.1 is H, the C-12-bonded nitrogen and the C-12 and C-13 carbons form a first ring structure having from 4 to 7 members, and/or the C-12-bonded nitrogen and the C-11 and C-12 carbons form a second ring structure having from 5 to 7 members. The compounds of Formula I further include aryl- and nitrogen-substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 8 OF 9 USPATFULL on STN
AN 1999:146263 USPATFULL
TI Detection of Ribosomal RNA using PNA probes
IN Hyldig-Nielsen, Jens J.o slashed.rgen, Vanl.o slashed.se, Denmark
Godskesen, Michael Anders, Vedb.ae butted.k, Denmark
PA Dako A/S, Glostrup, Denmark (non-U.S. corporation)
PI US 5985563 19991116
AI US 1997-869454 19970605 (8)
RLI Division of Ser. No. US 1995-443930, filed on 18 May 1995
PRAI DK 1994-572 19940519
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.; Assistant Examiner: Riley, Jezia
LREP Graham & James LLP
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1564
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB PNA probes for detection of Neisseria gonorrhoeae and Chlamydia trachomatis.

Specific peptide nucleic acid (PNA) probes for detecting a sexual transmitted disease caused by Neisseria gonorrhoeae or Chlamydia trachomatis comprising N-(2-aminoethyl)glycine units in amide linkage with the glycine nitrogen connected to naturally occurring nucleobases or non-naturally occurring nucleobases by a methylene carbonyl linker and said probes capable of hybridizing to 16S or 23S rRNA or rDNA of Neisseria gonorrhoeae or Chlamydia trachomatis are described.

PNA is a very stable molecule with very high affinity for nucleic acid allowing a PNA probe to be shorter than conventional nucleic acid probes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 9 OF 9 USPATFULL on STN
AN 1999:92800 USPATFULL
TI Dibenzorhodamine dyes
IN Benson, Scott C., Foster City, CA, United States
Lam, Joe Y. L., Foster City, CA, United States
Menchen, Steven Michael, Foster City, CA, United States
PA The Perkin-Elmer Corporation, Foster City, CA, United States (U.S. corporation)
PI US 5936087 19990810
AI US 1997-978775 19971125 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Davis, Zinna Northington
LREP Grossman, Paul D.
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1459
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Dibenzorhodamine compounds having the structure ##STR1## are disclosed, including nitogen- and aryl-substituted forms thereof. In addition, two intermediates useful for synthesizing such compounds are disclosed, a first intermediate having the structure ##STR2## including nitrogen- and aryl-substituted forms thereof, and a second intermediate having the structure ##STR3## including nitrogen- and aryl-substituted forms thereof, wherein substituents at positions C-14 to C18 taken separately are selected from the group consisting of hydrogen, chlorine, fluorine, lower alkyl, carboxylic acid, sulfonic acid, --CH.sub.2 OH, alkoxy, phenoxy, linking group, and substituted forms thereof. The invention further includes energy transfer dyes comprising the dibenzorhodamine compounds, nucleosides labeled with the dibenzorhodamine compounds, and nucleic acid analysis methods employing the dibenzorhodamine compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l10 9 kwic

L10 ANSWER 9 OF 9 USPATFULL on STN
SUMM In a fourth aspect, the invention includes energy transfer dye compounds comprising a donor dye, an acceptor dye, and a linker linking the donor and acceptor dyes. The donor dye is capable of absorbing light at a first wavelength and emitting. . .
SUMM In a fifth aspect, the present invention includes labeled nucleoside/tides having the structure
SUMM wherein NUC is a nucleoside/tide or nucleoside/tide analog and D is a dibenzorhodamine dye compound having the structure set forth above. According to the invention, NUC and. . .
DETD "Nucleoside" refers to a compound consisting of a purine, deazapurine, or pyrimidine nucleoside base, e.g., adenine, guanine, cytosine, uracil, thymine, deazaadenine, deazaguanosine, and the like, linked to a pentose at the 1' position. When the nucleoside base is purine or 7-deazapurine, the sugar moiety is attached at the 9-position of the purine or deazapurine, and when the

nucleoside base is pyrimidine, the sugar moiety is attached at the 1-position of the pyrimidine, e.g., Kornberg and Baker, DNA Replication, 2nd Ed. (Freeman, San Francisco, 1992). The term " nucleotide" as used herein refers to a phosphate ester of a nucleoside, e.g., triphosphate esters, wherein the most common site of esterification is the hydroxyl group attached to the C-5 position of the pentose. The term "nucleoside/tide" as used herein refers to a set of compounds including both nucleosides and nucleotides. "Analogs" in reference to nucleosides/tides include synthetic analogs having modified base moieties, modified sugar moieties and/or modified phosphate moieties, e.g. described generally by Scheit, Nucleotide Analogs (John Wiley, New York, 1980). Phosphate analogs comprise analogs of phosphate wherein the phosphorous atom is in the +5. . . alkoxy, e.g., methoxy, ethoxy, allyloxy, isopropoxy, butoxy, isobutoxy and phenoxy, amino or alkylamino, fluoro, chloro and bromo. The term "labeled nucleoside/tide" refers to nucleosides/tides which are covalently attached to the dye compounds of Formula I through a linkage.

DETD "Polynucleotide" or "oligonucleotide" means polymers of natural nucleotide monomers or analogs thereof, including double and single stranded deoxyribonucleotides, ribonucleotides, α-anomeric forms thereof, and the like. Usually the nucleoside monomers are linked by phosphodiester linkages, where as used herein, the term "phosphodiester linkage" refers to phosphodiester bonds or bonds. . .

DETD . . . of absorbing the excitation energy emitted by the donor dye and fluorescing at a second wavelength in response, and a linker which attaches the donor dye to the acceptor dye, the linker being effective to facilitate efficient energy transfer between the donor and acceptor dyes. A through discussion of the structure, synthesis. . .

DETD . . . a fused ring structure which is attached to the carbonyl carbon, and R.sub.28 includes a functional group which attaches the linker to the acceptor dye.

DETD In another preferred embodiment of the energy-transfer-dye aspect of the present invention, the linker attaches to the dibenzorhodamine dye component of the energy transfer dye at the C-1 or 13 positions, or, alternatively, where the C-7 substituent is phenyl. . .

DETD A. Nucleoside/tide Reagents

DETD A preferred class of labeled reagents comprise nucleoside /tides that incorporate the dibenzorhodamine dyes of the invention. Such nucleoside/tide reagents are particularly useful in the context of labeling polynucleotides formed by enzymatic synthesis, e.g., nucleotide triphosphates used in the context of PCR amplification, Sanger-type polynucleotide sequencing, and nick-translation reactions.

DETD Generally, the structure of the labeled nucleoside/tide reagent is

DETD where NUC is a nucleoside/tide or nucleoside/tide analog and D is a dibenzorhodamine dye compound of Formula II.

DETD The linkage linking the nucleoside/tide and the dye may be attached to the dye at any one of substituent positions C-1 to C-18 or at. . . nitrogen. Preferably, the dye includes a phenyl or substituted phenyl substituent at the C-7 position and is attached to the nucleoside/tide at one of the C-15 or C-16 substituent positions, the other position being a hydrogen atom.

DETD Nucleoside labeling can be accomplished using any one of a large number of known nucleoside/tide labeling techniques employing known linkages, linking groups, and associated complementary functionalities. Generally, the linkage linking the dye and nucleoside should (i) not interfere with oligonucleotide-target hybridization, (ii) be compatible with relevant enzymes, e.g.,

polymerases, ligases, and the like, and (iii) not adversely affect the fluorescence properties of the dye. Exemplary base labeling procedures suitable for use in connection with the present invention include the following: Gibson et al, Nucleic Acids Research, 15:6455-6467. . .

DETD Preferably, the linkages are acetylenic amido or alkenic amido linkages, the linkage between the dye and the nucleoside/tide base being formed by reacting an activated N-hydroxysuccinimide (NHS) ester of the dye with an alkynylamino- or alkenylamino-derivatized base of a nucleoside/tide. More preferably, the resulting linkage is 3-(carboxy)amino-1-propyn-1-yl having the structure ##STR14##

DETD . . . for several hours, or until thin layer chromatography indicates consumption of the halodideoxynucleoside. When an unprotected alkynylamine is used, the alkynylamino-nucleoside can be isolated by concentrating the reaction mixture and chromatographing on silica gel using an eluting solvent which contains ammonium. . .

DETD Particularly preferred nucleosides/tides of the present invention are shown below in Formula IV wherein ##STR18## B is a nucleoside /tide base, e.g., uracil, cytosine, deazaadenine, or deazaguanosine; W.sub.1 and W.sub.2 taken separately are OH or a group capable of blocking. . .

DETD . . . method, and the like, e.g., Gait, Oligonucleotide Synthesis, IRL Press (1990). Labels may be introduced during enzymatic synthesis utilizing labeled nucleotide triphosphate monomers as described above, or introduced during chemical synthesis using labeled non-nucleotide or nucleotide phosphoramidites as described above, or may be introduced subsequent to synthesis.

DETD . . . describes the steps of a typical polynucleotide synthesis cycle using the phosphoramidite method. First, a solid support including a protected nucleotide monomer is treated with acid, e.g., trichloroacetic acid, to remove a 5'-hydroxyl protecting group, freeing the hydroxyl for a subsequent coupling reaction. An activated intermediate is then formed by simultaneously adding a protected phosphoramidite nucleoside monomer and a weak acid, e.g., tetrazole, to the reaction. The weak acid protonates the nitrogen of the phosphoramidite forming a reactive intermediate. Nucleoside addition is complete within 30 s. Next, a capping step is performed which terminates any polynucleotide chains that did not undergo nucleoside addition. Capping is preferably done with acetic anhydride and 1-methylimidazole. The internucleotide linkage is then converted from the phosphite to. . .

DETD Any of the phosphoramidite nucleoside monomers may be dye-labeled phosphoramidites as described above. If the 5'-terminal position of the nucleotide is labeled, a labeled non-nucleotidic phosphoramidite of the invention may be used during the final condensation step. If an internal. . .

DETD . . . In the AmpFLPs technique, the polynucleotides may be labeled by using a labeled polynucleotide PCR primer, or by utilizing labeled nucleotide triphosphates in the PCR.

DETD In another such fragment analysis method known as nick translation, a reaction is used to replace unlabeled nucleoside triphosphates in a double-stranded DNA molecule with labeled ones. Free 3'-hydroxyl groups are created within the unlabeled DNA by "nicks" caused by deoxyribonuclease I (DNAase I) treatment. DNA polymerase I then catalyzes the addition of a labeled nucleotide to the 3'-hydroxyl terminus of the nick. At the same time, the 5' to 3'-exonuclease activity of this enzyme eliminates the nucleotide unit from the 5'-phosphoryl terminus of the nick. A new nucleotide with a free 3'-OH group is incorporated at the position of the original excised nucleotide, and the nick is shifted along by one nucleotide unit in the 3' direction. This

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       3' shift will result in the sequential addition of new labeled
       nucleotides to the.  .  .
DETD   .  .  .  site based on where an oligonucleotide primer anneals to the
       template. The synthesis reaction is terminated by incorporation of a
       nucleotide analog that will not support continued DNA
       elongation. Exemplary chain-terminating nucleotide analogs
       include the 2',3'-dideoxynucleoside 5'-triphosphates (ddNTPs) which lack
       the 3'-OH group necessary for 3' to 5' DNA chain elongation. When.  .  .
CLM    What is claimed is:
 .  .  .  claim 24 wherein the water-solubilizing group is selected from the
       group consisting of sulfonate, phosphate, quaternary amine, sulfate,
       polyhydroxyl, and water-soluble polymer.



=> d his

     (FILE 'HOME' ENTERED AT 11:49:49 ON 04 JUL 2010)

     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:50:31 ON
     04 JUL 2010
L1          4804 S (NUCLEOTIDE OR NUCLEOSIDE) AND BASE (4A) (LABEL? OR MARKER OR
L2           531 S L1 AND LINKER (4A) (LABEL? OR MARKER OR DYE)
L3            27 S L2 AND LINKER (6A) POLYMER
L4             0 S L3 AND WATER SOLUBLE POLYMER
L5             8 S L3 AND LINKER (4A) 50
L6             8 DUP REM L5 (0 DUPLICATES REMOVED)
L7            19 S L3 NOT L6
L8            19 DUP REM L7 (0 DUPLICATES REMOVED)
L9             9 S L2 AND POLYMER (5A) WATER SOLUBLE
L10            9 DUP REM L9 (0 DUPLICATES REMOVED)

=> d his

     (FILE 'HOME' ENTERED AT 11:49:49 ON 04 JUL 2010)

     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:50:31 ON
     04 JUL 2010
L1          4804 S (NUCLEOTIDE OR NUCLEOSIDE) AND BASE (4A) (LABEL? OR MARKER OR
L2           531 S L1 AND LINKER (4A) (LABEL? OR MARKER OR DYE)
L3            27 S L2 AND LINKER (6A) POLYMER
L4             0 S L3 AND WATER SOLUBLE POLYMER
L5             8 S L3 AND LINKER (4A) 50
L6             8 DUP REM L5 (0 DUPLICATES REMOVED)
L7            19 S L3 NOT L6
L8            19 DUP REM L7 (0 DUPLICATES REMOVED)
L9             9 S L2 AND POLYMER (5A) WATER SOLUBLE
L10            9 DUP REM L9 (0 DUPLICATES REMOVED)

=> s l2 and linker (4a)
MISSING TERM AFTER LINKER (4A
Operators must be followed by a search term, L-number, or query name.

=> s l2 and linker (4a) (peg or polyamide or polyphosphate or glycol or polyacetate
or poly?)
L11         117 L2 AND LINKER (4A) (PEG OR POLYAMIDE OR POLYPHOSPHATE OR GLYCOL
                OR POLYACETATE OR POLY?)

=> s l11 and soluble
L12          65 L11 AND SOLUBLE
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=> s l12 not l3
L13         44 L12 NOT L3

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14          44 DUP REM L13 (0 DUPLICATES REMOVED)

=> s l14 and 2003/py
L15          5 L14 AND 2003/PY

=> d l15 bib abs 1-5

L15  ANSWER 1 OF 5  USPATFULL on STN
AN     2003:319498  USPATFULL
TI     Labeling reagents and labeled targets, target labeling processes and
       other processes for using same in nucleic acid determinations and
       analyses
IN     Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
       Rabbani, Elazar, New York, NY, UNITED STATES
PI     US 20030225247      A1  20031204                              <--
       US 7166478          B2  20070123
AI     US 2002-96075       A1  20020312 (10)
DT     Utility
FS     APPLICATION
LREP   ENZO LIFE SCIENCES, INC., c/o ENZO BIOCHEM, INC., 527 Madison Avenue,
       9th Floor, New York, NY, 10022
CLMN   Number of Claims: 286
ECL    Exemplary Claim: 1
DRWN   15 Drawing Page(s)
LN.CNT 4499
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     This invention provides for labeling reagents, labeled targets and
       processes for preparing labeling reagents. The labeling reagents can
       take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin
       dyes or composite dyes. These labeling reagents are useful for labeling
       probes or targets, including nucleic acids and proteins. These reagents
       can be usefully applied to protein and nucleic acid probe based assays.
       They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15  ANSWER 2 OF 5  USPATFULL on STN
AN     2003:279097  USPATFULL
TI     Releasable nonvolatile mass label molecules
IN     Monforte, Joseph A., Berkeley, CA, United States
       Becker, Christopher H., Palo Alto, CA, United States
       Pollart, Daniel J., Menlo Park, CA, United States
       Shaler, Thomas A., Menlo Park, CA, United States
PA     Sequenom Inc., San Diego, CA, United States (U.S. corporation)
PI     US 6635452          B1  20031021                              <--
AI     US 1997-988024          19971210 (8)
PRAI   US 1996-33037P          19961210 (60)
       US 1997-46719P          19970516 (60)
DT     Utility
FS     GRANTED
EXNAM  Primary Examiner: Riley, Jezia
LREP   Heller Ehrman White & McAuliffe LLP, Seidman, Stephanie L.
CLMN   Number of Claims: 90
ECL    Exemplary Claim: 1
DRWN   51 Drawing Figure(s); 35 Drawing Page(s)
LN.CNT 4660
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Using nonvolatile, releasable, mass-labels, the present invention provides for the synthesis and use of mass-labeled compounds to specifically interact with biomolecular targets. Following binding of the mass-labeled compounds to the target molecule, the unique mass-label can be analyzed using mass spectrometry to identify and characterize the target molecule. In one embodiment of the invention, a mass-labeled oligonucleotide probe is used to identify a specific gene sequence. A myriad of mass-labeled compounds may be produced for use in a wide variety of interactions such as oligonucleotide-oligonucleotide hybridization, polynucleotide-polynucleotide interactions, enzyme-substrate or substrate analog/intermediate interactions, polypeptide-nucleic acid interactions, protein-ligand interactions, receptor-ligand interactions, polypeptide-metal interactions, nucleic acid-metal interactions or antigen-antibody interactions. Also contemplated are combinatorial processes for creating large libraries of compounds permitting rapid screening for a wide variety of targets.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 5 USPATFULL on STN

AN 2003:273357 USPATFULL

TI Manipulation of microparticles in microfluidic systems

IN Mehta, Tammy Burd, San Jose, CA, United States
Kopf-Sill, Anne R., Portola Valley, CA, United States
Parce, J. Wallace, Palo Alto, CA, United States
Chow, Andrea W., Los Altos, CA, United States
Bousse, Luc J., Los Altos, CA, United States
Knapp, Michael R., Redwood City, CA, United States
Nikiforov, Theo T., San Jose, CA, United States
Gallagher, Steve, Palo Alto, CA, United States

PA Caliper Technologies Corp., Mountain View, CA, United States (U.S. corporation)

PI US 6632655 B1 20031014 <--

AI US 2000-510626 20000222 (9)

PRAI US 1999-128643P 19990409 (60)
US 1999-127825P 19990405 (60)
US 1999-121223P 19990223 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Ponnaluri, Padmashri; Assistant Examiner: Tran, My Chau T

LREP Quine Intellectual Property Law Group, P.C., Murphy, Matthew B., McKenna, Donald R.

CLMN Number of Claims: 71

ECL Exemplary Claim: 1

DRWN 28 Drawing Figure(s); 19 Drawing Page(s)

LN.CNT 4515

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Arrays of flowable or fixed particle sets are used in microfluidic systems for performing assays and modifying hydrodynamic flow. Also provided are assays utilizing flowable or fixed particle sets within a microfluidic system, as well as kits, apparatus and integrated systems comprising arrays and array members.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 5 USPATFULL on STN

AN 2003:237696 USPATFULL

TI Antisense imaging of gene expression of the brain in vivo

IN Partridge, William M., Pacific Palisades, CA, UNITED STATES

Boado, Ruben J., Agoura Hills, CA, UNITED STATES
PA The Regents of the University of California Office of Technology Transfer (U.S. corporation)
PI US 20030165853 A1 20030904 <--
AI US 2001-5996 A1 20011203 (10)
PRAI US 2000-250990P 20001204 (60)
DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
CLMN Number of Claims: 61
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 2661
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides imaging reagents for the detection of a gene or gene expression product (e.g. mRNA) in a brain cell in vivo. Preferred reagents comprise a detectable label attached to a first nucleic acid that specifically hybridizes to the gene or to a nucleic acid transcribed from the gene. The first nucleic acid is linked to a targeting ligand that is capable of binding a receptor on a cell comprising the blood brain barrier and crossing said blood brain barrier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 5 USPATFULL on STN
AN 2003:30278 USPATFULL
TI Releasable nonvolatile mass-label molecules
IN Monforte, Joseph A., Berkeley, CA, UNITED STATES
Becker, Christopher H., Palo Alto, CA, UNITED STATES
Pollart, Daniel J., Menlo Park, CA, UNITED STATES
Shaler, Thomas A., Menlo Park, CA, UNITED STATES
PI US 20030022225 A1 20030130 <--
US 7132519 B2 20061107
AI US 2002-202189 A1 20020722 (10)
RLI Continuation of Ser. No. US 1997-988024, filed on 10 Dec 1997, PENDING
PRAI US 1996-33037P 19961210 (60)
US 1997-46719P 19970516 (60)
DT Utility
FS APPLICATION
LREP Stephanie Seidman, Heller Ehrman White & McAuliffe LLP, 7th Floor, 4350 La Jolla Village Drive, San Diego, CA, 92122
CLMN Number of Claims: 122
ECL Exemplary Claim: 1
DRWN 35 Drawing Page(s)
LN.CNT 4085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Releasable tag reagents for use in the detection and analysis of target molecules, particular in mass spectrometric analyses are provided. Also provided are methods of detection that employ releasable tag reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s l14 not l15
L16 39 L14 NOT L15

=> d l16 bib abs 1-39

L16 ANSWER 1 OF 39 USPATFULL on STN

AN 2010:77816 USPATFULL
TI POLYNUCLEOTIDES AND RELATED NANOASSEMBLIES, STRUCTURES, ARRANGEMENTS, METHODS AND SYSTEMS
IN MAUNE, Hareem T., Pasadena, CA, UNITED STATES
Han, Si-Ping, Yorba Linda, CA, UNITED STATES
Barish, Robert D., Pasadena, CA, UNITED STATES
Bockrath, Marc W., Diamond Bar, CA, UNITED STATES
Goddard, William A., Pasadena, CA, UNITED STATES
Rothemund, Paul W.K., Pasadena, CA, UNITED STATES
Winfree, Erik, Altadena, CA, UNITED STATES
PI US 20100069621 A1 20100318
AI US 2009-540052 A1 20090812 (12)
PRAI US 2008-188854P 20080813 (61)
US 2008-189792P 20080822 (61)
US 2009-170564P 20090417 (61)
DT Utility
FS APPLICATION
LREP Steinfl & Bruno, 301 N Lake Ave Ste 810, Pasadena, CA, 91101, US
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 22 Drawing Page(s)
LN.CNT 2929
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A linker polynucleotide for attaching a nanomaterial to a polynucleotidic platform and related nanoassemblies, arrangements, structures, methods and systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 39 USPATFULL on STN
AN 2009:363316 USPATFULL
TI CIS REACTIVE OXYGEN QUENCHERS INTEGRATED INTO LINKERS
IN Otto, Geoffrey, San Carlos, CA, UNITED STATES
Shen, Gene, Santa Clara, CA, UNITED STATES
Kong, Xiangxu, Foster City, CA, UNITED STATES
Emig, Robin, Belmont, CA, UNITED STATES
PA Pacific Biosciences of California, Inc., Menlo Park, CA, UNITED STATES (U.S. corporation)
PI US 20090325260 A1 20091231
AI US 2009-367411 A1 20090206 (12)
PRAI US 2008-26992P 20080207 (61)
DT Utility
FS APPLICATION
LREP MORGAN, LEWIS & BOCKIUS LLP (SF), One Market, Spear Street Tower, Suite 2800, San Francisco, CA, 94105, US
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 1318
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods and compositions for performing illuminated reactions, particularly sequencing reactions, while mitigating and/or preventing photodamage to reactants that can result from prolonged illumination. In particular, the invention provides methods and compositions for incorporating photoprotective agents into conjugates comprising reporter molecules and nucleoside polyphosphates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 39 USPATFULL on STN

AN 2009:348386 USPATFULL
TI BIOASSAY SYSTEM INCLUDING OPTICAL DETECTION APPARATUSES, AND METHOD FOR DETECTING BIOMOLECULES
IN CHIOU, CHUNG-FAN, Cyonglin Township, TAIWAN, PROVINCE OF CHINA
Chu, Cheng-Wei, Yonghe City, TAIWAN, PROVINCE OF CHINA
Li, Yu-Tang, Tucheng City, TAIWAN, PROVINCE OF CHINA
Chu, Chang-Sheng, Hsinchu City, TAIWAN, PROVINCE OF CHINA
Chung, Shuang-Chao, Jhongli City, TAIWAN, PROVINCE OF CHINA
Fan, Chih-Hsun, Hsinchu City, TAIWAN, PROVINCE OF CHINA
PA Industrial Technology Research Institute (non-U.S. corporation)
PI US 20090311774 A1 20091217
AI US 2009-500567 A1 20090709 (12)
RLI Continuation-in-part of Ser. No. US 2008-255044, filed on 21 Oct 2008, PENDING
PRAI US 2007-996016P 20071025 (60)
US 2008-36652P 20080314 (61)
DT Utility
FS APPLICATION
LREP FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 1674
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A bioassay system is disclosed. The bioassay system may include a plurality of optical detection apparatuses, each of which includes a substrate having a light detector, and a linker site formed over the light detector, the linker site being treated to affix the biomolecule to the linker site. The linker site is proximate to the light detector and is spaced apart from the light detector by a distance of less than or equal to 100 micrometers. The light detector collects light emitted from the biomolecule within a solid angle of greater than or equal to 0.8 SI steridian. The optical detection apparatus may further include an excitation light source formed over the substrate so as to provide a light source for exciting a fluorophore attached to the biomolecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 39 USPATFULL on STN
AN 2009:213280 USPATFULL
TI Chase Ligation Sequencing
IN Hendrickson, Cynthia, Wenham, MA, UNITED STATES
PA Applied Biosystems Inc., Foster City, CA, UNITED STATES (U.S. corporation)
PI US 20090191553 A1 20090730
AI US 2008-243925 A1 20081001 (12)
PRAI US 2007-976757P 20071001 (60)
DT Utility
FS APPLICATION
LREP MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404, US
CLMN Number of Claims: 44
ECL Exemplary Claim: 1
DRWN 70 Drawing Page(s)
LN.CNT 7177
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB In various embodiments, the present teachings provide sequencing methods which facilitate enhancing the efficiency of ligation and/or increasing sequencing reads. Various embodiments of the methods enable sequencing through template regions for which complementary labeled extension

probes are unavailable or insufficient. In various embodiments, one or more rounds of ligation with unlabeled extension probes can be used in addition to a round of ligation with labeled extension probe. In various embodiments, for example, such methods can facilitate extension on template polynucleotides that do not bind labeled extension probe in the first round of ligation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 5 OF 39 USPATFULL on STN
AN 2009:162778 USPATFULL
TI BIOASSAY SYSTEM INCLUDING OPTICAL DETECTION APPARATUSES, AND METHOD FOR DETECTING BIOMOLECULES
IN CHIOU, Chung-Fan, Cyonglin Township, TAIWAN, PROVINCE OF CHINA
CHU, Cheng-Wei, Yonghe City, TAIWAN, PROVINCE OF CHINA
CHANG, Shang-Chia, Zhubei City, TAIWAN, PROVINCE OF CHINA
LI, Yu-Tang, Tucheng City, TAIWAN, PROVINCE OF CHINA
PAN, Chao-Chi, Hsinchu City, TAIWAN, PROVINCE OF CHINA
YAO, Bin-Cheng, Taipei City, TAIWAN, PROVINCE OF CHINA
PI US 20090146076 A1 20090611
AI US 2008-255044 A1 20081021 (12)
PRAI US 2007-996016P 20071025 (60)
US 2008-36652P 20080314 (61)
DT Utility
FS APPLICATION
LREP FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US
CLMN Number of Claims: 61
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 1705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A bioassay system is disclosed. The bioassay system may include a plurality of optical detection apparatuses, each of which includes a substrate having a light detector, and a linker site formed over the light detector, the linker site being treated to affix the biomolecule to the linker site. The linker site is proximate to the light detector and is spaced apart from the light detector by a distance of less than or equal to 100 micrometers. The light detector collects light emitted from the biomolecule within a solid angle of greater than or equal to 0.8 SI steridian. The optical detection apparatus may further include an excitation light source formed over the substrate so as to provide a light source for exciting a fluorophore attached to the biomolecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 6 OF 39 USPATFULL on STN
AN 2009:152569 USPATFULL
TI Manipulation of Microparticles In Microfluidic Systems
IN Mehta, Tammy Burd, San Jose, CA, UNITED STATES
Kopf-Sill, Anne R., Portola Valley, CA, UNITED STATES
Parce, J. Wallace, Palo Alto, CA, UNITED STATES
Chow, Andrea W., Los Altos, CA, UNITED STATES
Bousse, Luc J., Los Altos, CA, UNITED STATES
Knapp, Michael R., Palo Alto, CA, UNITED STATES
Nikiforov, Theo T., San Jose, CA, UNITED STATES
Gallagher, Steve, Palo Alto, CA, UNITED STATES
PA CALIPER LIFE SCIENCES, INC., Mountain View, CA, UNITED STATES (U.S. corporation)
PI US 20090137413 A1 20090528
AI US 2007-928808 A1 20071030 (11)

RLI Division of Ser. No. US 2003-606201, filed on 25 Jun 2003, PENDING
Continuation of Ser. No. US 2000-510626, filed on 22 Feb 2000, Pat. No. US 6632655
PRAI WO 2000-US4486 20000222
WO 2000-US4522 20000222
US 1999-121223P 19990223 (60)
US 1999-127825P 19990405 (60)
US 1999-128643P 19990409 (60)
DT Utility
FS APPLICATION
LREP CARDINAL LAW GROUP, Caliper Life Sciences, Inc., 1603 Orrington Avenue, Suite 2000, Evanston, IL, 60201, US
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 4104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Arrays of flowable or fixed particle sets are used in microfluidic systems for performing assays and modifying hydrodynamic flow. Also provided are assays utilizing flowable or fixed particle sets within a microfluidic system, as well as kits, apparatus and integrated systems comprising arrays and array members.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 7 OF 39 USPATFULL on STN
AN 2009:145929 USPATFULL
TI SIALIC ACID ABC TRANSPORTERS IN PROKARYOTES THERAPEUTIC TARGETS
IN Gibson, Bradford W., Berkeley, CA, UNITED STATES
Munson, Robert S., Hilliard, OH, UNITED STATES
Post, Deborah M., Fairfax, CA, UNITED STATES
PA BUCK INSTITUTE, Novato, CA, UNITED STATES (U.S. corporation)
PI US 20090131524 A1 20090521
AI US 2006-916975 A1 20060531 (11)
WO 2006-US21202 20060531
20081222 PCT 371 date
PRAI US 2005-689151P 20050607 (60)
DT Utility
FS APPLICATION
LREP Weaver Austin Villeneuve & Sampson LLP, P.O. BOX 70250, OAKLAND, CA, 94612-0250, US
CLMN Number of Claims: 39
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 2903
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides a novel bacterial sialic acid transporter that is a member of the family of ABC transporters. The transporter is a useful target for pharmaceuticals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 8 OF 39 USPATFULL on STN
AN 2009:76424 USPATFULL
TI Label target and labeling reagents comprising rigid group backbones
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20090069500 A1 20090312
AI US 2004-763102 A1 20040122 (10)

RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, Pat. No. US 7166478
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 77
ECL Exemplary Claim: 1-286
DRWN 15 Drawing Page(s)
LN.CNT 3744
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 9 OF 39 USPATFULL on STN
AN 2008:305957 USPATFULL
TI DETECTABLE LABELED NUCLEOSIDE ANALOGS AND METHODS OF USE THEREOF
IN Bodepudi, Veeraiah, San Ramon, CA, UNITED STATES
GUPTA, Amar, Danville, CA, UNITED STATES
Will, Stephen G., Oakland, CA, UNITED STATES
PI US 20080268441 A1 20081030
US 7452674 B2 20081118
AI US 2007-742097 A1 20070430 (11)
DT Utility
FS APPLICATION
LREP Roche Molecular Systems, Inc., Patent Law Department, 4300 Hacienda Drive, Pleasanton, CA, 94588, US
CLMN Number of Claims: 8
ECL Exemplary Claim: 1-68
DRWN No Drawings
LN.CNT 2148
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to detectable labels useful for detection of nucleotide sequences. Specifically, the invention relates to labeled-imidazole-PEG compounds, such as nucleosides, nucleotides, and nucleic acids incorporating such compounds, and methods utilizing such compounds. The invention further relates to kits comprising labeled imidazole-PEG compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 10 OF 39 USPATFULL on STN
AN 2008:238073 USPATFULL
TI POLYNUCLEIC ACID-ATTACHED PARTICLES AND THEIR USE IN GENOMIC ANALYSIS
IN Loge, Gary W., State College, PA, UNITED STATES
PA LCM Technologies, Inc., State College, PA, UNITED STATES (U.S. corporation)
PI US 20080206758 A1 20080828
AI US 2007-872892 A1 20071016 (11)
PRAI US 2006-829719P 20061017 (60)
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, CIRA CENTRE, 12TH FLOOR, 2929 ARCH STREET,

PHILADELPHIA, PA, 19104-2891, US
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 1190
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are methods for preparing particle-linked polynucleotides, and using the particle linked polynucleotides in genomic analysis. The particles as disclosed are characterized as having a size variance of less than 2%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 11 OF 39 USPATFULL on STN
AN 2007:237793 USPATFULL
TI DETECTABLE LABELED NUCLEOSIDE ANALOGS AND METHODS OF USE THEREOF
IN Bodepudi, Veeraiah, San Ramon, CA, UNITED STATES
Gupta, Amar, Danville, CA, UNITED STATES
Will, Stephen G., Oakland, CA, UNITED STATES
PA ROCHE MOLECULAR SYSTEMS, INC., Alameda, CA, UNITED STATES (U.S. corporation)
PI US 20070208169 A1 20070906
US 7456266 B2 20081125
AI US 2007-742070 A1 20070430 (11)
RLI Division of Ser. No. US 2003-719257, filed on 21 Nov 2003, GRANTED, Pat. No. US 7220847
PRAI US 2002-428484P 20021122 (60)
DT Utility
FS APPLICATION
LREP ROCHE MOLECULAR SYSTEMS INC, PATENT LAW DEPARTMENT, 1145 ATLANTIC AVENUE, ALAMEDA, CA, 94501, US
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2068
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to detectable labels useful for detection of nucleotide sequences. Specifically, the invention relates to labeled-imidazole-PEG compounds, such as nucleosides, nucleotides, and nucleic acids incorporating such compounds, and methods utilizing such compounds. The invention further relates to kits comprising labeled imidazole-PEG compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 12 OF 39 USPATFULL on STN
AN 2007:231302 USPATFULL
TI DETECTABLE LABELED NUCLEOSIDE ANALOGS AND METHODS OF USE THEREOF
IN Bodepudi, Veeraiah, San Ramon, CA, UNITED STATES
Gupta, Amar, Danville, CA, UNITED STATES
Will, Stephen G., Oakland, CA, UNITED STATES
PA ROCHE MOLECULAR SYSTEMS, INC., Alameda, CA, UNITED STATES (U.S. corporation)
PI US 20070202576 A1 20070830
US 7501504 B2 20090310
AI US 2007-742123 A1 20070430 (11)
RLI Division of Ser. No. US 2003-719257, filed on 21 Nov 2003, GRANTED, Pat. No. US 7220847
PRAI US 2002-428484P 20021122 (60)

DT Utility
FS APPLICATION
LREP ROCHE MOLECULAR SYSTEMS INC, PATENT LAW DEPARTMENT, 1145 ATLANTIC AVENUE, ALAMEDA, CA, 94501, US
CLMN Number of Claims: 16
ECL Exemplary Claim: 1-77
DRWN No Drawings
LN.CNT 2056
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to detectable labels useful for detection of nucleotide sequences. Specifically, the invention relates to labeled-imidazole-PEG compounds, such as nucleosides, nucleotides, and nucleic acids incorporating such compounds, and methods utilizing such compounds. The invention further relates to kits comprising labeled imidazole-PEG compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 13 OF 39 USPATFULL on STN
AN 2007:68444 USPATFULL
TI "Met/fret based method of target nucleic acid detection whereby the donor/acceptor moieties are on complementary strands"
IN Islam, Amirul, Hyderabad, INDIA
Hazea, Papia, Hyderabed, INDIA
PI US 20070059690 A1 20070315
AI US 2003-516361 A1 20030530 (10)
WO 2003-IN204 20030530
20041130 PCT 371 date
PRAI IN 2002-MU487 20020531
DT Utility
FS APPLICATION
LREP STEPHAN A. PENDORF, P.A., PENDORF & CUTLIFF, 5111 MEMORIAL HIGHWAY, TAMPA, FL, 33634, US
CLMN Number of Claims: 57
ECL Exemplary Claim: 1-62
DRWN 38 Drawing Page(s)
LN.CNT 3233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosure of a method for the detection and quantitation of polynucleotide sequences in a sample of biological or non-biological material through target poly nucleotide sequence amplification by polymerase chain reaction using chemically labeled oligonucleotide amplification primers and formation of an entity between the amplified polynucleotide sequence and chemically labeled polynucleotide having a sequence complementary to the target polynucleotide sequence for determining the identity and/or presence and/or quantitation of the target poly nucleotide sequences. The chemical label covalently attached to the oligonucleotide amplification primer and polynucleotide or oligonucleotide comprise molecular energy transfer labels (donor and acceptor). It is again a very sensitive, rapid and reliable method with better sensitivity, specificity and reliability for the detection of polynucleotide sequence. It also greatly reduces the possibility of amplification product carry-over contamination and adaptable for many formats of nucleic acids amplifications and real time measurements.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 14 OF 39 USPATFULL on STN
AN 2006:202424 USPATFULL
TI Labeling reagents and labeled targets comprising nonmetallic porphyrins

IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20060172308 A1 20060803
US 7537751 B2 20090526
AI US 2004-763088 A1 20040122 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 3541
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 15 OF 39 USPATFULL on STN
AN 2006:152267 USPATFULL
TI Antagonizing an adenosine A2A receptor to ameliorate one or more components of addictive behavior
IN Diamond, Ivan F., Berkeley, CA, UNITED STATES
Gordon, Adrienne S., Kensington, CA, UNITED STATES
PA The Regents of the University of California (U.S. corporation)
PI US 20060128708 A1 20060615
AI US 2005-153725 A1 20050614 (11)
PRAI US 2004-581143P 20040617 (60)
DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501, US
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 2235
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides a method of mitigating/ameliorating one or more components of addictive behavior associated with chronic consumption of a substance of abuse, or withdrawal therefrom. The method typically involves administering to a subject in need thereof an adenosine A2A receptor antagonist in an amount sufficient to ameliorate said one or more components of addictive behavior.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 16 OF 39 USPATFULL on STN
AN 2006:46815 USPATFULL
TI Bio-barcode based detection of target analytes
IN Mirkin, Chad A., Wilmette, IL, UNITED STATES
Nam, Jwa-Min, Berkeley, CA, UNITED STATES
Oh, Byung-Keun, Evanston, IL, UNITED STATES

Thaxton, C. Shad, Chicago, IL, UNITED STATES
Georganopoulou, Dimitra, Chicago, IL, UNITED STATES
PA Nanosphere, Inc. (U.S. corporation)
PI US 20060040286 A1 20060223
AI US 2005-127808 A1 20050512 (11)
RLI Continuation-in-part of Ser. No. US 2004-877750, filed on 25 Jun 2004, PENDING Continuation-in-part of Ser. No. WO 2004-US20493, filed on 25 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2002-108211, filed on 27 Mar 2002, GRANTED, Pat. No. US 6974669 Continuation-in-part of Ser. No. US 2001-820279, filed on 28 Mar 2001, GRANTED, Pat. No. US 6750016
PRAI US 2004-570723P 20040512 (60)
US 2004-585294P 20040701 (60)
US 2005-645455P 20050119 (60)
US 2003-506708P 20030926 (60)
US 2003-482979P 20030627 (60)
US 2003-496893P 20030821 (60)
US 2003-515243P 20031028 (60)
US 2003-530797P 20031218 (60)
US 2001-350560P 20011113 (60)
DT Utility
FS APPLICATION
LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP, 300 S. WACKER DRIVE, 32ND FLOOR, CHICAGO, IL, 60606, US
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 27 Drawing Page(s)
LN.CNT 4753
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to screening methods, compositions, and kits for detecting for the presence or absence of one or more target analytes, e.g. biomolecules, in a sample. In particular, the present invention relates to a method that utilizes reporter oligonucleotides as biochemical barcodes for detecting multiple protein structures or other target analytes in a solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 17 OF 39 USPATFULL on STN
AN 2006:40616 USPATFULL
TI Processes for incorporating nucleic acid sequences into an analyte or library of analytes
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20060035264 A1 20060216
AI US 2005-237466 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 69
ECL Exemplary Claim: 1-413
DRWN 15 Drawing Page(s)
LN.CNT 4099
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic

acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 18 OF 39 USPATFULL on STN
AN 2006:34199 USPATFULL
TI Processes for quantitative or qualitative detection of single-stranded or double-stranded nucleic acids
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PI US 20060029968 A1 20060209
AI US 2005-235516 A1 20050926 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 275
ECL Exemplary Claim: 1-33
DRWN 15 Drawing Page(s)
LN.CNT 5182
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 19 OF 39 USPATFULL on STN
AN 2006:27907 USPATFULL
TI Site- or sequence-specific process for cleaving analytes and library of analytes
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20060024738 A1 20060202

PI US 7396647 B2 20080708
AI US 2005-237467 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 555
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 6144
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 20 OF 39 USPATFULL on STN
AN 2006:27906 USPATFULL
TI Process for removal of homopolymeric sequence portion from analyte(s) and library of analytes
IN Babbani, Elazar, New york, NY, UNITED STATES
Stavrianopoulos, Jannis G., Baysnore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20060024737 A1 20060202
US 7550265 B2 20090623
AI US 2005-237442 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1-527
DRWN 15 Drawing Page(s)
LN.CNT 3943
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and

provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 21 OF 39 USPATFULL on STN
AN 2006:27904 USPATFULL
TI Chimeric nucleic acid constructs and compositions comprising sets of nucleic acid constructs
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Lslip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20060024735 A1 20060202
US 7547772 B2 20090616
AI US 2005-236151 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 52
ECL Exemplary Claim: 1-404
DRWN 15 Drawing Page(s)
LN.CNT 4013
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 22 OF 39 USPATFULL on STN
AN 2005:240503 USPATFULL
TI Chemical ligation of nucleic acids
IN Yowanto, Handy, Walnut, CA, UNITED STATES
Yu, Changjun, Pasadena, CA, UNITED STATES
PI US 20050208503 A1 20050922
AI US 2004-803166 A1 20040316 (10)
DT Utility
FS APPLICATION
LREP DORSEY & WHITNEY LLP, 555 CALIFORNIA STREET, SUITE 1000, SUITE 1000, SAN FRANCISCO, CA, 94104, US
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 1735
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the field of nucleic acid analysis. More particularly, the invention relates to compositions and methods used for the detection of sequence variations or single nucleotide

polymorphisms (SNPs) in a nucleic acid of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 23 OF 39 USPATFULL on STN
AN 2005:159178 USPATFULL
TI Real-time nucleic acid detection processes and compositions
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Baysnore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PI US 20050137388 A1 20050623
AI US 2002-96076 A1 20020312 (10)
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 542
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 6158
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 24 OF 39 USPATFULL on STN
AN 2005:125227 USPATFULL
TI Mobility-modifying cyanine dyes
IN Menchen, Steven M., Fremont, CA, UNITED STATES
Benson, Scott C., Alameda, CA, UNITED STATES
Rosenblum, Barnett B., San Jose, CA, UNITED STATES
Khan, Shaheer H., Foster City, CA, UNITED STATES
PA Applera Corporation, Foster City, CA, UNITED STATES (U.S. corporation)
PI US 20050107617 A1 20050519
AI US 2004-801092 A1 20040315 (10)
RLI Division of Ser. No. US 2000-477270, filed on 4 Jan 2000, GRANTED, Pat. No. US 6716994
DT Utility
FS APPLICATION
LREP MILA KASAN, PATENT DEPT., APPLIED BIOSYSTEMS, 850 LINCOLN CENTRE DRIVE, FOSTER CITY, CA, 94404, US
CLMN Number of Claims: 41
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3875
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides a novel class of fluorescent cyanine dye compounds that are modified at one of the hetercyclic ring nitrogen

atoms with a mobility-modifying moiety that permits the electrophoretic mobilities of polynucleotides labeled with the mobility-modifying cyanine dyes to be adjusted or tuned in a predictable fashion while retaining enzymatic activity. The ability to predictably tune the relative electrophoretic mobilities of the dyes permits the creation of sets of mobility-matched fluorescent dyes of a variety of structures for a variety of applications, including fluorescence-based 4-color nucleic acid sequencing reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 25 OF 39 USPATFULL on STN
AN 2005:5243 USPATFULL
TI Novel chemiluminescent reagents
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 20050004350 A1 20050106
US 7256299 B2 20070814
AI US 2004-764388 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 17
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3601
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 26 OF 39 USPATFULL on STN
AN 2004:321700 USPATFULL
TI Labeling reagents comprising aphenylic analogs of rhodamine dyes
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY (U.S. corporation)
PI US 20040254355 A1 20041216
US 7256291 B2 20070814
AI US 2004-763076 A1 20040122 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4545
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can

take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 27 OF 39 USPATFULL on STN
AN 2004:292946 USPATFULL
TI Heterodimeric dye composition
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabban, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES, 10022 (U.S. corporation)
PI US 20040230036 A1 20041118
US 7323571 B2 20080129
AI US 2004-764389 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4541
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 28 OF 39 USPATFULL on STN
AN 2004:292164 USPATFULL
TI Novel dye labeling composition
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 20040229248 A1 20041118
US 6949659 B2 20050927
AI US 2004-764393 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue, 9th Floor, New York, NY, 10022-4304
CLMN Number of Claims: 4
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3537
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling

probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 29 OF 39 USPATFULL on STN
AN 2004:260541 USPATFULL
TI Process for preparing novel cyanine dye labeling reagents
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbam, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 20040203038 A1 20041014
US 7241897 B2 20070710
AI US 2004-761906 A1 20040121 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 15
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3584
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 30 OF 39 USPATFULL on STN
AN 2004:248291 USPATFULL
TI Process for detecting the presence or quantity of enzymatic activity in a sample
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES, 10022 (U.S. corporation)
PI US 20040192893 A1 20040930
US 7553959 B2 20090630
AI US 2004-764417 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 36
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3665
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents

can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 31 OF 39 USPATFULL on STN
AN 2004:228200 USPATFULL
TI Process for detecting the presence or quantity of enzymatic activity in a sample
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 20040176586 A1 20040909
US 7163796 B2 20070116
AI US 2004-764418 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4543
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 32 OF 39 USPATFULL on STN
AN 2004:221271 USPATFULL
TI Detectable labeled nucleoside analogs and methods of use thereof
IN Bodepudi, Veeraiah, San Ramon, CA, UNITED STATES
Gupta, Amar, Danville, CA, UNITED STATES
Will, Stephen, Oakland, CA, UNITED STATES
PI US 20040171040 A1 20040902
US 7220847 B2 20070522
AI US 2003-719257 A1 20031121 (10)
PRAI US 2002-428484P 20021122 (60)
DT Utility
FS APPLICATION
LREP MORGAN, LEWIS & BOCKIUS, LLP., 3300 HILLVIEW AVENUE, PALO ALTO, CA, 94304
CLMN Number of Claims: 80
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2435
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to detectable labels useful for detection of nucleotide sequences. Specifically, the invention relates to labeled-imidazole-PEG compounds, such as nucleosides, nucleotides, and nucleic acids incorporating such compounds, and methods utilizing such compounds. The invention further relates to kits comprising labeled imidazole-PEG compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 33 OF 39 USPATFULL on STN
AN 2004:126981 USPATFULL
TI Manipulation of microparticles in microfluidic systems
IN Burd Mehta, Tammy, San Jose, CA, UNITED STATES
Kopf-Sill, Anne R., Portola Valley, CA, UNITED STATES
Parce, J. Wallace, Palo Alto, CA, UNITED STATES
Chow, Andrea W., Los Altos, CA, UNITED STATES
Bousse, Luc J., Los Altos, CA, UNITED STATES
Knapp, Michael R., Redwood City, CA, UNITED STATES
Nikiforov, Theo T., San Jose, CA, UNITED STATES
Gallagher, Steve, Palo Alto, CA, UNITED STATES
PA Caliper Technologies Corp., Mountain View, CA (U.S. corporation)
PI US 20040096960 A1 20040520
AI US 2003-606201 A1 20030625 (10)
RLI Continuation of Ser. No. US 2000-510626, filed on 22 Feb 2000, GRANTED, Pat. No. US 6632655
PRAI US 1999-121223P 19990223 (60)
US 1999-127825P 19990405 (60)
US 1999-128643P 19990409 (60)
DT Utility
FS APPLICATION
LREP CALIPER LIFE SCIENCES, INC., 605 FAIRCHILD DRIVE, MOUNTAIN VIEW, CA, 94043-2234
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 4120
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Arrays of flowable or fixed particle sets are used in microfluidic systems for performing assays and modifying hydrodynamic flow. Also provided are assays utilizing flowable or fixed particle sets within a microfluidic system, as well as kits, apparatus and integrated systems comprising arrays and array members.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 34 OF 39 USPATFULL on STN
AN 2004:85289 USPATFULL
TI Mobility-Modifying Cyanine Dyes
IN Menchen, Steven M., Fremont, CA, United States
Benson, Scott C., Alameda, CA, United States
Rosenblum, Barnett B., San Jose, CA, United States
Khan, Shaheer H., Foster City, CA, United States
PA Applera Corporation, Foster City, CA, United States (U.S. corporation)
PI US 6716994 B1 20040406
AI US 2000-477270 20000104 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: McKane, Joseph K.; Assistant Examiner: Saeed, Kamal
LREP Peasu, Ann, Liptak, Vincent P.
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 3306
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides a novel class of fluorescent cyanine dye compounds that are modified at one of the hetercyclic ring nitrogen atoms with a mobility-modifying moiety that permits the electrophoretic

mobilities of polynucleotides labeled with the mobility-modifying cyanine dyes to be adjusted or tuned in a predictable fashion while retaining enzymatic activity. The ability to predictably tune the relative electrophoretic mobilities of the dyes permits the creation of sets of mobility-matched fluorescent dyes of a variety of structures for a variety of applications, including fluorescence-based 4-color nucleic acid sequencing reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 35 OF 39 USPATFULL on STN
AN 2004:44533 USPATFULL
TI Releasable nonvolatile mass-label molecules
IN Monforte, Joseph A., Berkeley, CA, UNITED STATES
Becker, Christopher H., Palo Alto, CA, UNITED STATES
Pollart, Daniel J., Menlo Park, CA, UNITED STATES
Shaler, Thomas A., Menlo Park, CA, UNITED STATES
PI US 20040033525 A1 20040219
AI US 2003-637935 A1 20030807 (10)
RLI Division of Ser. No. US 2002-202189, filed on 22 Jul 2002, PENDING
Continuation of Ser. No. US 1997-988024, filed on 10 Dec 1997, GRANTED, Pat. No. US 6635452
PRAI US 1996-33037P 19961210 (60)
US 1997-46719P 19970516 (60)
DT Utility
FS APPLICATION
LREP HELLER EHRMAN WHITE & MCAULIFFE LLP, 4350 LA JOLLA VILLAGE DRIVE, 7TH FLOOR, SAN DIEGO, CA, 92122-1246
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 35 Drawing Page(s)
LN.CNT 3933
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Releasable tag reagents for use in the detection and analysis of target molecules, particular in mass spectrometric analyses are provided. Also provided are methods of detection that employ releasable tag reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 36 OF 39 USPATFULL on STN
AN 1999:110164 USPATFULL
TI Ligase/polymerase-mediated genetic bit analysis of single nucleotide polymorphisms and its use in genetic analysis
IN Nikiforov, Theo, Baltimore, MD, United States
Karn, Jonathan, Little Shelord, United Kingdom
Goelet, Philip, Cockeysville, MD, United States
PA Orchid Biocomputer, Inc., Princeton, NJ, United States (U.S. corporation)
PI US 5952174 19990914
AI US 1997-929101 19970915 (8)
RLI Continuation of Ser. No. US 1996-694835, filed on 9 Aug 1996, now patented, Pat. No. US 5679524 which is a continuation of Ser. No. US 1994-192631, filed on 7 Feb 1994, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Auerbach, Jeffrey I., Mendelson, Elliot C.Howrey & Simon
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1299

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for determining the identity of a nucleotide at a preselected site in a nucleic acid molecule. The method involves the incorporation of a nucleoside triphosphate that is complementary to the nucleotide present at the preselected site onto the terminus of a primer molecule, and their subsequent ligation to a second oligonucleotide. The reaction is monitored by detecting a specific label attached to the reaction's solid phase or by detection in solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 37 OF 39 USPATFULL on STN
AN 97:96725 USPATFULL
TI Ligase/polymerase mediated genetic bit analysis of single nucleotide polymorphisms and its use in genetic analysis
IN Nikiforov, Theo, Baltimore, MD, United States
Karn, Jonathan, Little Shelord, United Kingdom
Goelet, Philip, Cockeysville, MD, United States
PA Molecular Tool, Inc., Baltimore, MD, United States (U.S. corporation)
PI US 5679524 19971021
AI US 1996-694835 19960809 (8)
RLI Continuation of Ser. No. US 1994-192631, filed on 7 Feb 1994, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Howrey & Simon, Auerbach, Jeffrey I.
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1456
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for determining the identity of a nucleotide at a preselected site in a nucleic acid molecule. The method involves the incorporation of a nucleoside triphosphate that is complementary to the nucleotide present at the preselected site onto the terminus of a primer molecule, and their subsequent ligation to a second oligonucleotide. The reaction is monitored by detecting a specific label attached to the reaction's solid phase or by detection in solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 38 OF 39 USPATFULL on STN
AN 92:80906 USPATFULL
TI Alkynylamino-nucleotides
IN Hobbs, Jr., Frank W., Wilmington, DE, United States
Trainor, George L., Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5151507 19920929
AI US 1991-713906 19910612 (7)
DCD 20080910
RLI Continuation-in-part of Ser. No. US 1987-57565, filed on 12 Jun 1987, now patented, Pat. No. US 5047519 which is a continuation-in-part of Ser. No. US 1986-881372, filed on 2 Jul 1986, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Wilson, J. Oliver

LREP Frank, George A.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3011
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Alkynylamino-nucleotides and labeled alkynylaminonucleotides useful, for example, as chain terminating substrates for DNA sequencing are provided along with several key intermediates and processes for their preparation. For some applications, longer, hydrophilic linkers are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 39 OF 39 USPATFULL on STN
AN 91:73471 USPATFULL
TI Alkynylamino-nucleotides
IN Hobbs, Jr., Frank W., Wilmington, DE, United States
Cocuzza, Anthony J., Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5047519 19910910
AI US 1987-57565 19870612 (7)
RLI Continuation-in-part of Ser. No. US 1986-881372, filed on 2 Jul 1986, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Wilson, James O.
LREP Frank, George A.
CLMN Number of Claims: 12
ECL Exemplary Claim: 6,9
DRWN No Drawings
LN.CNT 2907
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Alkynylamino-nucleotides and labeled alkynylamino-nucleotides useful, for example, as chain terminating substrates for DNA sequencing are provided along with several key intermediates and processes for their preparation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.